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JANUARY 1948

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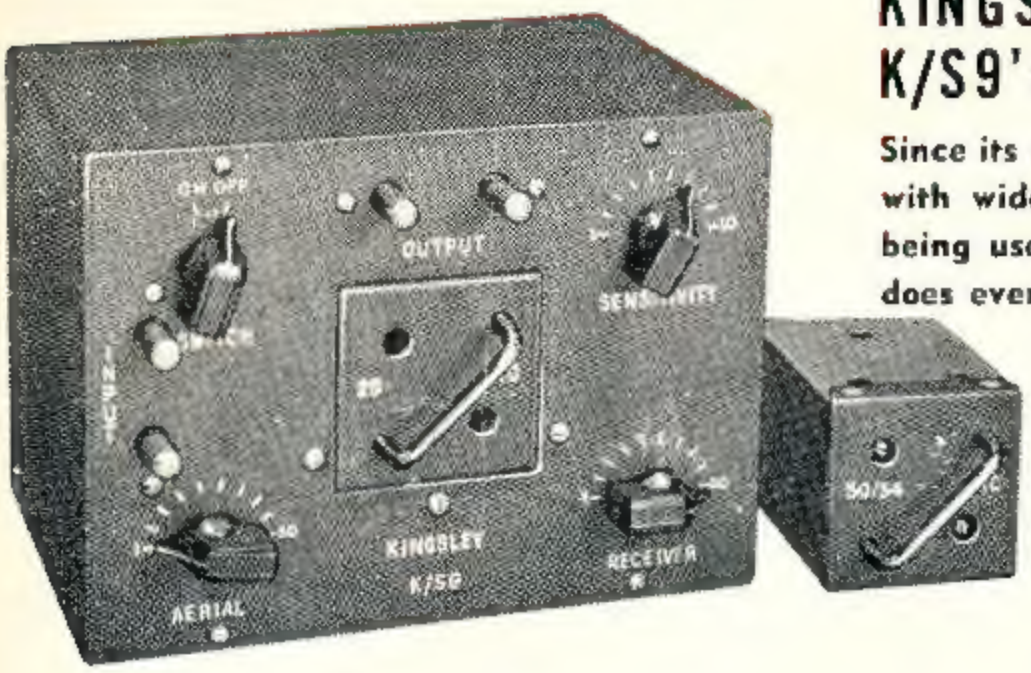

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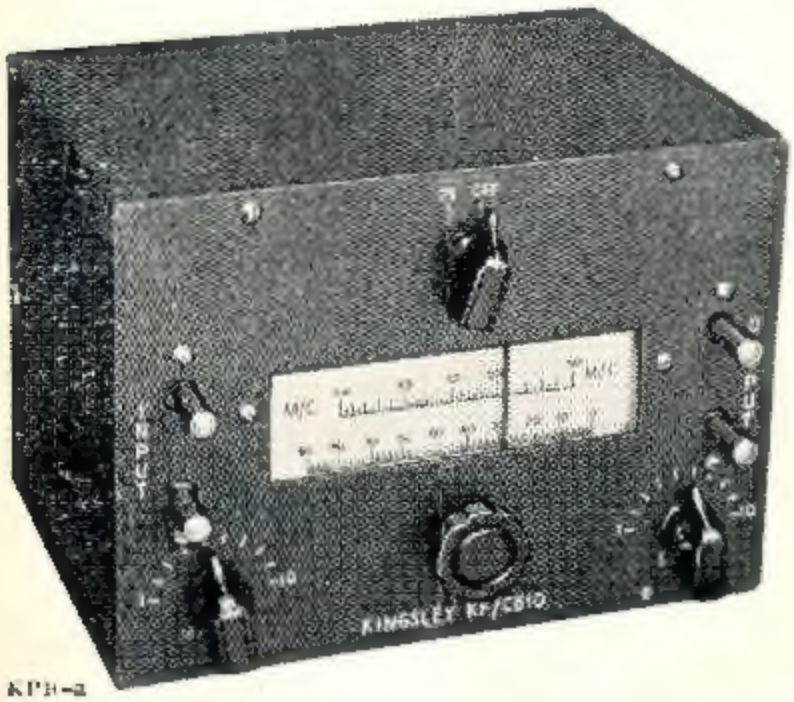

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JANUARY : : 1948
Vol. 16 No. 1

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20 Queen Street, Melbourne, C.1.
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Printers:
H. HEARNE & CO. PTY. LTD.,
285 Latrobe Street, Melbourne.

MSS. and Magazine Correspondence should be forwarded to the Editor, "Amateur Radio," Box 2611W, G.P.O., Melbourne, on or before the 15th of each month.

Subscription rate is 6/- per annum, in advance (post. paid).

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AMATEUR RADIO

Published by The Wireless Institute of Australia,
Law Court Chambers, 191 Queen Street,
Melbourne, C.1

EDITORIAL

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Where once the v.f.o. was considered the obvious starting point for the beginner, and the crystal controlled transmitter the acme of finesse for the "old timer," the positions have been reversed as operating procedures have advanced and techniques have developed. The v.f.o., properly constructed and used, can do much to save needless calling, QRM and operating time. However, to achieve these worthy objectives, it must be cunningly devised and sensibly and unselfishly used.

On the other hand, in the possession of the wrong person it can become a selfish convenience. A practice which seems to be gaining favor in some States among some of the "funny boys" of Amateur Radio, and has been brought to our notice by the P.M.G's. Department, is that of "sliding" their v.f.o. up on to the frequency of either one of stations in QSO, and impudently butting into the conversation at the appropriate moment.

To say the least of it, this practice is neither funny to the station whose transmission is interrupted and is far from being treated as a joke or good operating practice by the P.M.G. Further, it is a direct contravention of Section 98 of the "Handbook for the Guidance of Amateur Operators" (1946). This practice is not to be confused with unintentional interference which is such a common experience on our crowded bands today. Neither is it to be confused with one station being called into QSO with another on the same frequency with both stations' acquiescence.

It is the deliberate interference being caused, to which the Department and we likewise, refer and if persisted with, a serious view will be taken followed no doubt by disciplinary action. It rests with those who have been using this method to playfully or otherwise make contacts, to cease this practice at once. Enough unintentionally bad signals and practices are at present being heard daily without resorting to deliberate selfishness of this kind.

All Amateurs can help by frowning upon such procedure, as ostracism is called for in such circumstances. To those who have been offenders, we can only conclude by saying — "YOU HAVE BEEN WARNED."

W.T.S.M.

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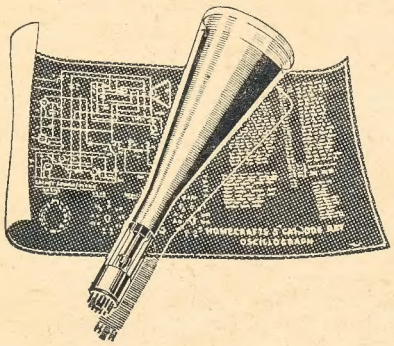

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DUAL BAND OPERATION WITH THE SCR522

By H. SCHOLZ*, VK4HR

When an SCR522 was recently acquired from Disposals it was decided to alter it to cover both the 50 Mc. and 166 Mc. bands. In its original form the receiver was crystal controlled, on frequencies from 100 to 156 Mc., four spot frequencies being available from four low frequency crystals.

THE RECEIVER

Instead of using the low frequency oscillator and subsequent frequency multiplying stages, it was thought that a high frequency oscillator would be stable enough with the i.f. channel of 12 Mc. This proved so in practice.

The final arrangement of the tuning end was as follows:—At 50 Mc., the harmonic generator and harmonic amplifier became the r.f. and mixer stages respectively, and a 6K7 oscillator was added. On 166 Mc. the existing r.f. and mixer stages were used, and another oscillator added.

The r.f. and mixer stages are ganged and separate tuning used for the oscillators in each case.

The original low frequency oscillator was one section af a 12AH7 valve, the other half of which was used in a squelch circuit. These stages were removed entirely. In some sets a 12H6 valve will be found mounted underneath the chassis, and this stage was also eliminated. The block diagrams, Fig. 1, show the old and the new circuit arrangements.

The Audio Circuit.—Some complications occur in the audio circuit, as these stages were used for intercommunication between members of the plane crew, in addition to their normal functions. Transformer 295 was removed and the 12C8 was rewired in a conventional audio circuit as shown in Fig. 2. The audio squelch circuit comprising half of the 12AH7, the relay 246, the potentiometer 237 and associated resistors and condensers were removed. The 3 x 0.1 mfd. facing the r.f. portion of the set was also removed, two sections of this condenser were found to be wired into the squelch circuit, the third section being used for a.v.c. bypass; a 0.1 mfd. tubular condenser was fitted right at the terminal of i.f.t. 292.

Mainly to use convenient grouping of tubes and choosing those on hand, a 6J5 was substituted for the 12J5 audio output, and its heater wired in series with the 6K7, 50 Mc. oscillator.

An octal socket was mounted in the position vacated by transformer 295, and the 12J5 used as a b.f.o., see Fig. 3. The circuit is conventional, and sufficient stray coupling was obtained without any coupling condenser.

One of the coils from the oscillator plate circuit was rewound to bring out a tap, approximately one third from the bottom end and was tuned by approximately 40 pF. of capacity. The coil (unshielded) was mounted under the chassis, next to the associated valve socket. A three-plate midget condenser, mounted on the front panel, is used to control the beat note.

I.F. Channel.—This was left in its original state.

166 Mc. R.F. and Mixer.—These circuits were left undisturbed except for increasing the spacing of the turns to reach the band.

166 Mc. Oscillator.—This is an addition to the set. Its circuit is shown in Fig. 4. The tube, the

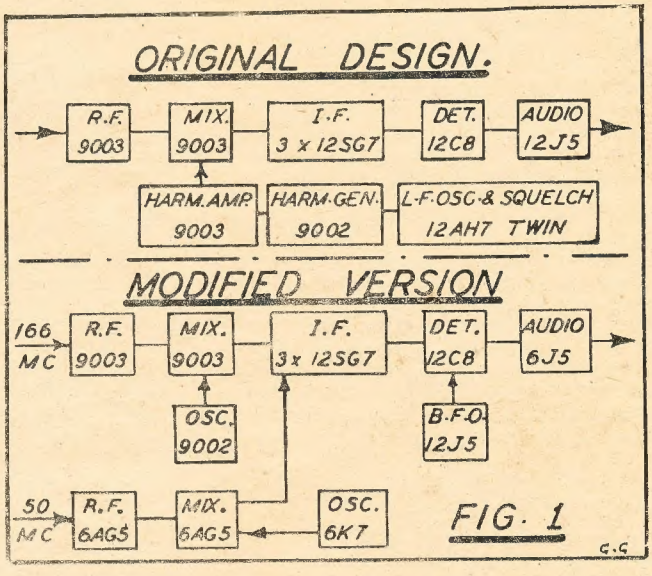


FIG. 1

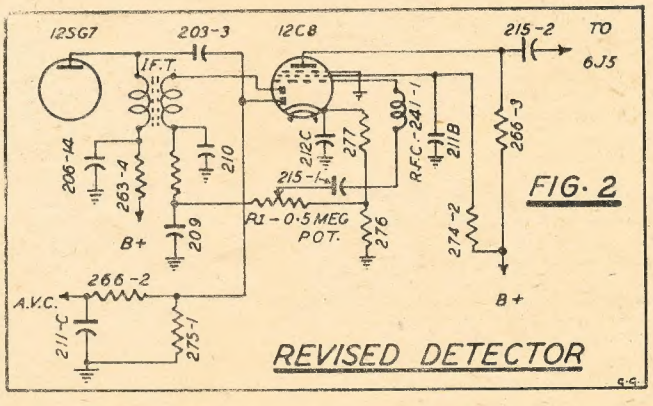


FIG. 2

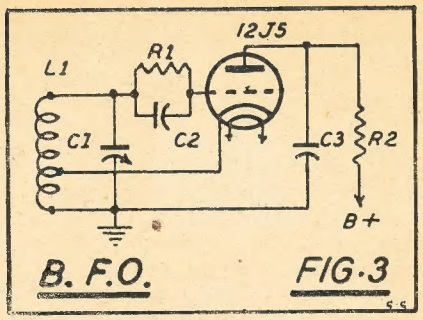


FIG. 3

R1—50,000 ohms
R2—0.5 Megohm.
C1—40 pF. trimmer & 3 plate midget
C2—100 pF.
C3—250 pF.
L1—See text.

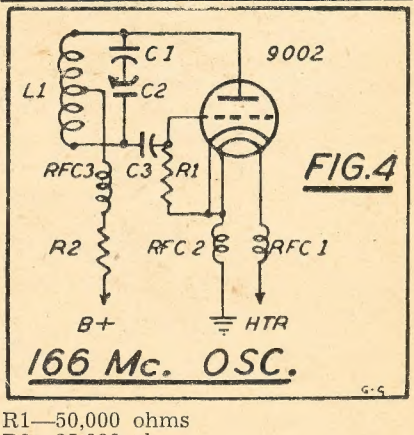
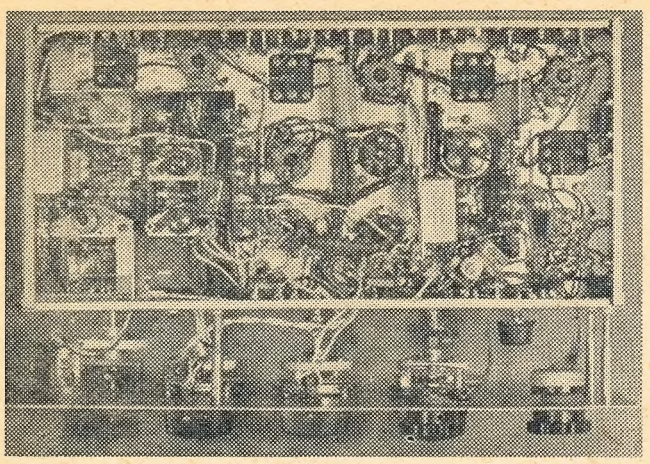
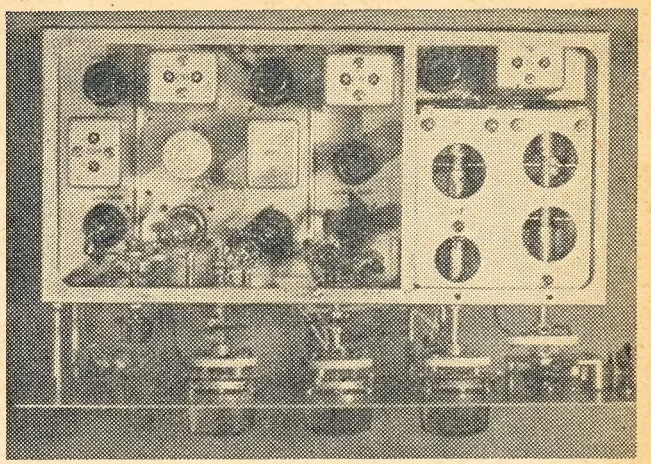


FIG.4

R1—50,000 ohms
R2—25,000 ohms
C1—Two plate midget.
C2—5 pF.
C3—50 pF.
RFC1 and 2—Parts No. 241-2, 241-3.
RFC3—similar choke as above.
L1—7 turns, pencil diameter.

* Jellicoe Street, Coorparoo, Queensland.





original 9002 harmonic generator, was mounted on a bracket attached to the rear of the original front panel, The plate pin of the socket was soldered direct to the lug of the two plate tuning condensers. The coil is mounted below the condenser and every effort made to keep the leads short. It will be noted from the circuit that a 5 pF. condenser is used in series to help band spreading.

The tuning condenser must be insulated from the panel. The heater chokes were parts No. 241-2 and 241-3, and will be found on the male portion of the power input connector. These chokes were found to be necessary in the heater circuit to give smooth oscillation over the band. They are mounted vertically beneath the 9002 socket, and projected through and anchored to the 12AH7 socket (this socket is otherwise unused). It was found essential to join the cathode to the filament above the choke, that is right at the 9002 socket. A similar choke was obtained from other equipment for the plate choke, or one could be wound on a high-value resistor.

The tuning coil was of 7 turns, wound on a pencil and spaced to hit the band.

Considerable experiment was necessary to obtain optimum injection of the oscillator, and the final arrangement was a stiff piece of insulated wire hooked into the grid end of the oscillator coil, passing through the hole at the side of the 12AH7 socket, thence under the chassis and running close to the mixer coil, and one turn around the mixer valve.

The 50 Mc. Tuning Stages.—Before commencing on this it is essential to remove the section containing the two gang condenser. Remove the bolt and two nuts on top of assembly and disconnect the wires leading to the terminal strip at the side of the assembly. This will permit removal of two gang condenser, valve sockets and associated resistors and condensers as an entire unit.

The circuit of these stages is shown in Fig. 5. In place of the 9000 series, two 6AG5s were used, with considerable improvement in performance. The harmonic amplifier becomes the mixer, and the harmonic generator the r.f. stage. Grid leak biassing is used on the mixer.

The value of plate dropping resistor on the r.f. stage was considered too large and was replaced by one of 5,000 ohms. The screen circuit had to be added to the r.f. stage, as the socket was wired for a triode. The tuning circuits are naturally transferred from the plates to the grids.

Coils are air spaced and wound with heavy gauge wire. They are mounted behind the valve sockets, thus enabling the grid connections to be reduced to a minimum.

The oscillator is a 6K7 and is mounted in the hole which was previously occupied by relay 246. The circuit is quite straightforward and requires no explanation.

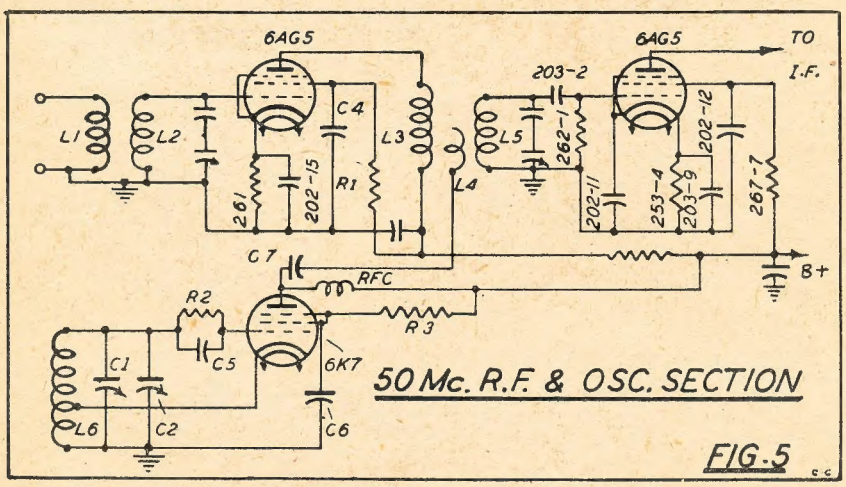
A common connection to the first i.f. transformer is made from the plate of both mixers.

Injection to the mixer is obtained by coupling from the oscillator plate through a 100 pF. condenser and a one-turn coil dropped into the mixer coil and adjusted for optimum injection. Coupling from the plate of the r.f. tube to the mixer is obtained by dropping a two-turn coil into the mixer coil and adjusting for best results.

Heater Circuits.—To operate on 166 or 50 Mc. it was decided to switch either the 166 or 50 Mc. mixer, r.f. and oscillator heater circuit by means of a d.p.d.t. toggle switch as shown in Fig. 6.

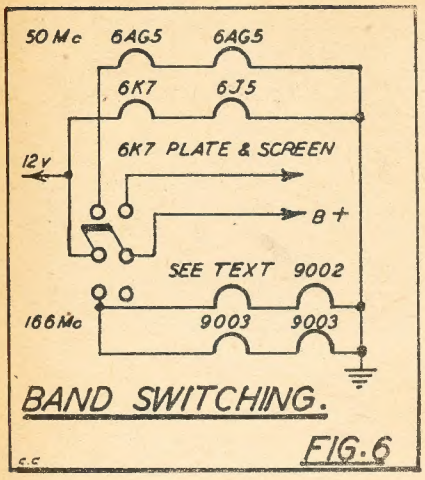
Due to the fact that the 6K7 50 Mc. oscillator valve is in series with the 6J5, its plate and screen high-tension supply was switched by means of two spare contacts on the switch.

The 9002 requires a resistor of 42 ohms in series with its heater. In



L1—2 turns
L2—6 „
L3—2 „ } ¾" diameter.
L4—1 „
L5—6 „
L6—7 turns, pencil diameter.
RFC—Four-tier RFC.

C1—5 plate.
C2—3 plate, double spaced.
C4, C6—0.005 mfd. Mica.
C5, C7—100 pF. Mica.
R1—0.1 Meg., 1 watt carbon.
R2, R3—50,000 ohms, 1 watt carbon.



my case I had on hand a 9006, which was mounted underneath the chassis at the side of the 50 Mc. r.f. assembly, and its heater wired in series with the 9002.

THE TRANSMITTER

As there appears to be some uncertainty regarding the 166 Mc. band being retained or changed to 144 Mc., a detailed description of the conversion of the transmitter will not be given.

For 166 Mc. the final tank coil had to have its turns spread considerably.

The plate lines to the 832 second tripler were shorted approximately half way and the grid coupling condensers moved about 1 inch nearer the plates.

One turn was taken off each end of the 12A6 tank coil. The plate and screen of the 6G6 were disconnected from B+, and the plate end of the tank coil also disconnected. A 7-turn, one inch diameter, space wound coil was soldered across the tuning condenser and link coupled to the main transmitter exciter at a frequency of 28 Mc.

The 12A6 tripler now becomes a doubler to 56 Mc., the 832 remaining a tripler to 168 Mc. By this means an abundance of drive was available for the final amplifier.

BACK WAVE

'Tis just fifty years since the Universal (International to you) Morse Code was introduced in Australia. A P.M.G. circular of 1897 reads:—

"On and after 1st July, 1897, the Universal Morse Code is to be used in all the Australian Colonies.

"Every operator in the service must make himself thoroughly acquainted with the new code and be quite proficient in its use by the date specified.

CHARLES TODD,
P.M.G. and Supt., Telegraphs,
G.P.O. Adelaide,
6th April, 1897."

POLYTHENE

Polythene, discovered in 1933 by research workers of I.C.I., is a general term for a range of solid polymers produced by subjecting ethylene gas to very high pressures. It has outstandingly good electrical insulating properties.

First produced towards the end of 1939, polythene immediately became of vital importance as an insulator for radio-location or "Radar." While Radar—another triumph of British wartime inventiveness—would no doubt have been developed without polythene, it is equally certain that it could not have done so with such rapidity as it did.

Today polythene is employed all over the world in the manufacture of telecommunication and submarine cables, and is also finding a variety of applications, ranging from chemical plant components to lamp shades.

RESEARCH AND DEVELOPMENT

Polythene was discovered through a programme of fundamental scientific research undertaken by I.C.I's. Alkali Division. This work was unrelated to any processes then being operated, and was directed purely to broadening the field of knowledge of the mechanism of chemical reactions under extreme physical conditions.

Early experimental work on high pressures was carried out by the French scientist Amagat over half a century ago. Brunner, Mond & Co. (the parents of I.C.I's. Alkali Division) became interested after the First World War through contact with Prof. A. M. J. F. Michels, of Amsterdam, University. Several of Brunner Mond's staff worked with Prof. Michels, who was doing a great variety of work at high pressures, and he frequently visited their laboratories at Winnington, Cheshire. From this collaboration grew I.C.I's. decision to undertake research on the effect of extremely high pressures (from 15,000 to 300,000 lb.) on certain chemical reactions.

Despite the world depression, this project was embarked upon in 1930. Work started in 1931, and over a year was spent developing the technique of making and handling the laboratory apparatus. The chemical studies began a year later. The first period was one of great disappointment and it was not until 1933 that anything novel was found. Early that year, when carrying out a series of reactions involving ethylene—the reactive gas well-known to organic chemists—a trace of a white solid was found in the reaction vessel. This was polythene, a solid polymer of ethylene.

Another two years elapsed before improved technique for dealing with the enormous pressures, and larger and more efficient apparatus, made a systematic study of this entirely new material possible. Almost immediately a whole series of setbacks were encountered. Attempts to repeat initial experiments resulted in violent and inexplicable explosions in the reaction vessels. There was a constant danger of the apparatus being wrecked. On one occasion the laboratory was, in fact, badly damaged.

At length, however, through studying the reaction conditions and paying particular attention to the purity of the ethylene gas, the process was brought under control. By 1936 important advances had been achieved, and the first beginnings were made towards devising a continuous process of manufacture, which was essential if an ultra high-pressure process was to be a practical proposition.

Development was not easy. Work at pressures above 15,000 lb. per square inch made it necessary to design novel gas compressors, joints, valves, tubing, reaction vessels and similar equipment. As the pressures were similar to those occurring in a gun on the explosion of the charge, the technique used in the manufacture of artillery was adopted.

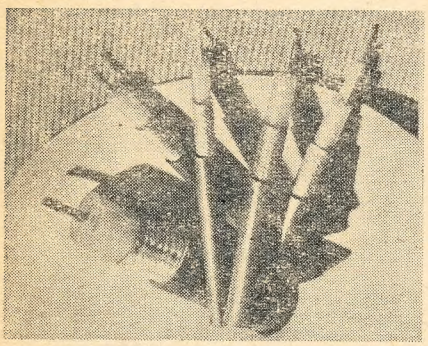
The many difficulties were finally overcome, mainly by devoted teamwork, and in 1937 continuous running on a small pilot plant in the laboratory was achieved. The following year saw the construction of a proper pilot plant unit, capable of demonstrating the basic ideas of a full-scale manufacturing process.

During this period of technical development, a study was also being made of the properties of this wholly novel product. Its outstanding electrical characteristics—great toughness, flexibility, lightness and water resistance—augured a promising future in electrical engineering. In 1938 contact was made with the Telegraph Construction & Maintenance Co., who had many years' experience in the processing of gutta-percha, particularly for under-sea cables. They were quick to realise the possibilities of polythene and adapted some of their machinery to the new material. An experimental length of submarine cable was made at the end of 1938, and a mile length in 1939. Even at this early, imperfect stage, great interest was shown by the British Post Office. Further experience indicated that polythene was not only promising for telephone and telegraph cables, but also for high-

frequency work, especially in television.

Results were so satisfactory that I.C.I. too decided to design and erect a full-scale manufacturing unit. This came into production on September 1, 1939—the very day Germany invaded Poland—but polythene had already given such evidence of its potentialities that the decision to double the capacity of the plant had been taken even before it started.

The first ton of polythene from the full scale unit was used in experimental work with radio-location or Radar, which had been developed during the same period. The outbreak of war brought the two inventions together. Although, in early 1940, polythene was mainly being developed for the insulation of special submarine cables, by the time of Dunkirk, when the second unit of the original plant came into operation, the bulk of the output had already been diverted to the manufacture of Radar cables. To quote Sir Robert Watson-Watt, F.R.S., the pioneer of Radar, Polythene "transformed the problems presented by airborne Radar from the almost insoluble to the comfortably manageable," and "played an indispensible part in the long series of victories in the air, on the sea and on the land, which were made possible by Radar."



Group of Co-Axial Cables with Polythene insulation.

To assure supplies, an entirely new plant was designed in 1940 and came into production in 1942. A continuously rising output was maintained, even though operating difficulties were still not entirely overcome.

Meanwhile, in 1940, I.C.I. had shipped polythene to America. It was processed by the Du Pont Co., and a cable made by the Western Electric Co. was laid on a section of the Bell Telephone Co's. trunk telephone lines. The United States had also experienced difficulties over the insulating of Radar cables, and in 1941 it was decided to standardise on polythene. Accordingly, an American delegation visited I.C.I. and were given full information about manufacture. Production started in America in 1943.

Polythene's wartime contribution to Radar overshadowed everything else, but it had other important uses, as sleeving in radio equipment, in the fuses of rocket shells, and, as strip or transparent film, for packing the anti-malarial mepacrine—this sensitive drug had tended to deteriorate in the hot damp climates of the malarious battle areas to which it was sent. It was found, however, that polythene packs kept it in perfect condition, even when it was actually immersed in water.

With the end of the war, polythene once more became important in the field of telecommunication.

PHYSICAL CHARACTERISTICS

Polythene may be described as a solid comprising a large number of ethylene units, five hundred or more, linked together under the combination of extreme pressure temperature and a catalyst. Ethylene can be produced in two days—from alcohol via molasses by catalytic dehydration, and also from petroleum cracking gases. The ethylene is purified with the utmost care, and then carefully and accurately mixed with oxygen in a very small concentration. The mixture is compressed in two main stages to 1,200 atmospheres and finally enters the reaction vessel at 200°C. During the polymerisation a considerable amount of heat is developed and the removal of this has been the subject of ingenious design in the manufacturing plants. The liquid polythene emerges from the reaction vessel in the form of a pellucid stream. It is then cast into blocks.

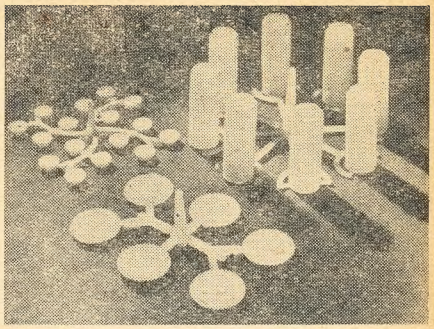
"Alkathene," I.C.I's. brand of polythene, is a tough, waxy-looking material—normally white, though sometimes slightly grey or pink—made in the form of sheets, rods and granules or chips.

It has a remarkable combination of insulating properties—i.e. great dielectric strength, great toughness and flexibility, lightness and extreme water resistance. Chemically, it is very inert and is usually only attacked by acids or alkalies at high temperatures. It is thermoplastic and can be extruded or moulded by compression or injection. No special tools are needed for machining or welding. Its tensile strength falls with increasing temperature and it melts sharply at about 115°C, the yield-point being reached at about 90°C.

PERFORMANCE

The generic name polythene covers a whole range of products with gradations in properties, and I.C.I. manufactures various grades of "Alkathene" suited to the performance required of the finished article. Hard grades are less liable to attack by chemical reagents than the soft, which are easier to process.

"Alkathene's" outstanding combination of electrical properties makes it very valuable for all types of electrical equipment—e.g., for solid insulated and airspaced high-frequency cables, where the power loss is required to be as small as possible, and for submarine and power cables. Other electrical applications include



Group of mouldings produced from "Alkathene" by injection moulding process. Note injection runners or "sprues" which are cut off after mouldings are removed from press.

moulded parts, such as cable ends, high voltage brushings and condenser dielectrics.

The suitability of "Alkathene" for electrical purposes should not, however, be allowed to overshadow its other applications. Compounded with waxes, the soft grade raises their melting point and reduces the tendency to crack or flake. Its good water resistance makes it an excellent wrapping material, especially for hot or humid climates. It may also be used for moulded containers and general fancy goods. Its translucent white appearance is attractive, and it is easy to colour by the addition of pigments.

PRODUCTION AND SUPPLY

In the United Kingdom, polythene is manufactured by I.C.I's. Alkali Division and marketed by I.C.I. Plastics Division under the trade name of "Alkathene."

Despite the fact that plant capacity has reached two hundred times the output of 1939 and two thousand times that of 1938, practically all production is absorbed by high priority requirements, such as cables and industrial mouldings. Plans for new plants and increased output are in active preparation.

LATEST DEVELOPMENTS

"Alkathene" has recently been developed as a coating for papers and fabrics. Materials treated in this way are glossy, tasteless, odourless, and almost water white. Tests indicate that they are likely to be of value for many applications and particularly for the packaging of foodstuffs and chemicals.

Polythene is also finding a wide range of industrial uses, where its chemical inertness and toughness are of great importance. It is, for instance, being moulded for press tools for metal pressings, chemical plant components and mouldings.

Other uses range from tubing in cold-water plumbing and beer-pumping installations in bars and breweries, to suspenders, and liners for bottle closures. Attractive and delicately tinted lamp shades are being made from another form of polythene known as "Crinothene."

SOME MEASUREMENTS OF THE IMPEDANCE MULTIPLICATION FACTOR OF FOLDED DIPOLES

The folded dipole has proved very popular amongst the Ham fraternity. We have, in the past, published comprehensive details of this efficient antenna and for interested Amateurs the following observations, made by VK3YC, agree with information contained in the articles of May issue, 1947, of "A.R."

By J. O'SHANNASSY*, VK3YC

I had been using, with some measure of success, a formula for the Impedance Multiplication Factor of folded dipoles which has been passed on to me by Mr. E. J. Wilkinson (A.M.I.R.E.), of the P.M.G's. Department, and was therefore very interested in the article by George Choules (VK3AHB) in February "Amateur Radio." His formula disagreed with the one I had been using because of his assumption that the current distribution between the elements was proportional to the ratio of the cross-sectional area of the elements, whereas Jim Wilkinson's formula was based on the assumption that the current was distributed in the ratio of the surface area of the elements.

After a discussion of VK3AHB's article, it was decided that the best way to solve the problem was to actually measure the Impedance Multiplication Factor of various folded dipole arrangements and so settle the argument for all time.

After the measurements had been proceeding for some time we found that neither formula was right, although Jim Wilkinson's was much nearer the mark than George Choules', particularly for the higher multiplication cases where it was found that the high multiplication factor given by George's expression could certainly not be attained in practice. While we were considering these results and trying to evolve an expression which would satisfy them, the articles by Kevin Magee (VK3KM) and Dr. Guertler appeared in May "Amateur Radio." We immediately applied their results to our figures and obtained quite good agreement, as will be seen later.

These measurements involve only apparatus which is easily accessible to almost every Amateur, so I will describe in some detail the method of measurement and the apparatus used. The set up of the apparatus is shown in Fig. 1.

For convenience in making and handling the folded dipoles a frequency in the region of 150 Mc. was used. As a source of r.f. power the transmitter portion of an SCR522 V.H.F. Transceiver was used. This transmitter is crystal controlled and delivers a power of 10 watts in the band 100-150 Mc. It was decided to use a source of this nature rather than a low powered oscillator so that a fairly insensitive Standing Wave Indicator could be used.

The open wire line consists of two lengths of $\frac{3}{8}$" diameter copper tube spaced 1-17/32" apart on Polystyrene insulators. This wire diameter and spacing gives a Characteristic Impedance (by calculation) of 252 ohms but, as will be shown later, the actual value of the Characteristic Impedance does not matter for our purpose. However, a value in the region of 250 ohms is convenient because it does not lead to excessive Standing Wave Ratios.

When the measurements were first tried, the apparatus was set up on a bench inside a room but it was found that movements of the operator had a marked effect on the Standing Waves, so the folded dipole was mounted outside the hut, with the corrugated iron wall acting as a shield. The presence of this earth plane affects the input impedance of the aerial but as we only wanted to determine Impedance Multiplication Factors, this does not matter as long as every antenna under test is mounted exactly the same distance from the wall.

Each antenna was first adjusted to be non-reactive. This is easily done by trimming the antenna until, on connecting and disconnecting the antenna to the line, the positions of the standing wave maxima and minima do not change (although their magnitude will). Under this condition, the antenna input impedance (Z_1, Z_2) is then equal to the Characteristic Impedance (Z_o) of the line multiplied or divided by the Standing Wave Ratio (SWR_1, SWR_2) depending upon whether the antenna impedance is greater or less than Z_o. Thus for an ordinary dipole trimmed to length to have a non-reactive input impedance, the impedance—

$$Z_1 = \frac{Z_o}{SWR_1}$$

(Z_1 is approx. 80 ohms, Z_o equals 252 ohms, SWR_1 is greater than 1).

When a folded dipole is connected and its length trimmed to make it non-reactive, its impedance

$$Z_2 = Z_o \times SWR_2$$

(because Z_2 is greater than Z_o, and SWR_2 is greater than 1).

Therefore the Impedance Multiplication Factor $= \frac{Z_2}{Z_1}$

$$= \frac{Z_o \times SWR_2}{\frac{Z_o}{SWR_1}} = SWR_1 \times SWR_2$$

A set of measurements was first carried out with fixed element spacing and varying diameter ratios, then another set with a fixed diameter ratio and varying element spacings. These results are listed in tabular form below, together with the calculated values using the expression:—

Impedance Multiplcation Factor $= (1 + x)^2$

where $x = \frac{\log\left\{\frac{\text{spacing}}{\text{smaller radius}}\right\}}{\log\left\{\frac{\text{spacing}}{\text{larger radius}}\right\}}$

as given in May "Amateur Radio."

It can be seen that quite a fair agreement exists between the measured and calculated values (better than 10% in all cases).

Constant Spacing

Configuration			Impedance Multiplication Factor	
Dia. A	Dia. B	Spac. C	Measured	Calculated
$\frac{3}{8}$"	$\frac{3}{8}$"	$1\frac{1}{2}$"	3.96	4.0
$\frac{3}{8}$"	$\frac{1}{4}$"	$1\frac{1}{2}$"	5.7	5.3
$\frac{1}{2}$"	$\frac{1}{4}$"	$1\frac{1}{2}$"	6.08	5.7
$\frac{1}{2}$"	0.19"	$1\frac{1}{2}$"	8.3	8.9

Constant Diameter Ratio

Configuration			Impedance Multiplication Factor	
Dia. A	Dia. B	Spac. C	Measured	Calculated
$\frac{1}{2}$"	$\frac{1}{4}$"	$\frac{1}{2}$"	8.89	9.0
$\frac{1}{2}$"	$\frac{1}{4}$"	1"	6.19	6.25
$\frac{1}{2}$"	$\frac{1}{4}$"	$1\frac{1}{2}$"	5.67	5.75
$\frac{1}{2}$"	$\frac{1}{4}$"	2"	5.48	5.5
$\frac{1}{2}$"	$\frac{1}{4}$"	$2\frac{1}{2}$"	5.25	5.3

In the above Table A and B are the diameters of respective elements. C being the centre to centre spacing thereof. With the exception of 0.19" element which was of solid copper, elements used consisted of copper tubing.

Further measurements are in progress with a view to finding the practical upper limit of Impedance Multiplication and some results should be available shortly.

Owing to a misunderstanding the illustration accompanying this article will not appear until the February issue.

* 8 Park Ave., Glenhuntly, S.E.9.

"MY RIG AND WHY"

BY E. A. CHARLES*, VK5YQ

Being VKs, a full explanation is in order on the "Why." So we (apologies to VK5MD) must take you back to 1946. The "we" is used because VS2BC/E/G and BZ all, on some occasions, operated VS2BF before getting/making use of their own calls. As the first active post-war VS2 our return to Amateur Radio could only be described as "de luxe." We had no competition (excluding the J and KA kilowatts) and we were DX—it chased us and not vice versa as now! The transmitter was a BC610 (Halicrafters HT4) running an input up to 600 watts; the antenna a half-wave dipole twisted pair feed, up on 70' steel masts. So, W.A.C. on 14 Mc. phone was somewhat easy—the first page of the log showing 24 QSOs comprising 14 countries (the only VK then being VK6DD).

Now here is the point to make clear. On the BC610 is a hi-power/low power switch which cuts the input to the final down to 90 watts—a carrier output of only 25 watts compared to approximately 500 watts with an input of 600 watts—as accurate as we could measure it. **The greatest reported change** in signal strength when switching from 500 to 25 **output was only ever 2 (two) S points.** So, with the advent of the return of the civilian amateurs (and a visit from the R.I.) the BC610 was normally run on the low power setting! Our results stayed the same! You triers modulating an 813 with Class B 811s have a long way to go.

However, many of our reports could undoubtedly have been improved with a beam antenna. There is no denying the signal VS2BU puts in with 25 watts to a simple rotating half-wave doublet almost any night.

And so we returned to VK land. The teething troubles of putting a rig on the air are omitted, as we all very rapidly learn that the circuits we put together so nicely are like the multi-element rotary beam you adjust according to theory—they never ever work properly until adjusted under actual operating conditions.

After installing the 807 at maximum ratings with all mod. cons., many hours were spent calling before we again struck conditions that got us a few Gs and Ws. Then what happened? "Your sig is S7 but your modulation sounds a bit thin OM"—and I'm watching the 100% trapezoidal pattern on the VCR139A! (used continuously since receipt of a pro forma B after idly using the Type 3 Mark II one day). "Say OC could you please QSY a few Kcs. either way to dodge that S9 ZS QRM?" And so it went on.

The decision to rebuild was to be delayed no longer. However, perhaps a rotary beam was the secret. So we (thanks to the QRM boys) put one up. It worked—down to S1 off the ends, S5 off the back. Good, now we're set. Improvement most noticeable on reception though. We work a little of that elusive DX—conditions must be good. They are, for so is our friend around the corner using 20 watts to his 807 and a full-wave zepp. But again, "Your modulation is down OM, please QSY."

We will rebuild. Since 28 and 14 Mc. appear to be the only post-war bands to put one again in fairly reliable communication with the friends we made while away, the new Tx shall be for 14 Mc. and above. The sturdy little Type 3 Mark II is quite OK for intra and interstate QSOs on 3.5, 7 and 14 Mc. bands at most times with any antenna.

The addition of a pre-selector and bandspread leave only a crystal filter to be desired to equal the performance of almost any communication receiver. The building of the latter is held in abeyance pending results of the W.I.A. Disposals negotiations!

A metal table console Tx was considered until the size and weight ruled it out—it covered most of the table which sagged somewhat. Since we were building for results and not display, reasonable compactness could be obtained without any noticeable loss of efficiency. This reduced size, using steel chassis and panels enable the complete station to be housed and operated in an angle iron (welded old bed rails) rack measuring 66" x 19" x 12½". Should we ever need an antenna tuner it can sit on top with the frequency meter/monitor. (Present aerial feed system is co-ax feed to single turn loop.)

The r.f. chassis: 16" x 12" x 2½"; 6V6 e.c.o. on 1.75 Mc., 6V6 buffer-quadrupler to 7 Mc. with voltage regulated separate power on this chassis (just as stable with the VR tube removed). 6L6 doubler-driver to 14 Mc. to Push-Pull 807s (Push-Push for 28 Mc. when the Rx gets there).

The a.f. chassis 16" x 5" x 3"; 6J7, 6SN7, 6H6 (peak limiting), 6V6 triode driving AB_2 807s. No longer is my modulation down, although we have not as yet completely removed the resultant distortion when she is fully wound up.

The power supplies are on same shelf as modulator but on separate chassis. 5Z3s are all that is necessary for a 100 watt Tx.

The third 9" shelf holds up the 45 volt bias battery and the simple c.r.o. modulation checker. You know just how you are operating—something meters alone can never ever tell you. And why inflict horrible noises on the long suffering ears of your fellow Hams (4EJ and 5LG please note) or use up many more Kcs. than the R.I. will soon let you know you may not so do?

The v.f.o. exciter, located next to the receiver, is no doubt very nice and convenient but it is a temptation to wander about the band and produce a few more letters to our Editor. Now it is just out of reach in the sitting position so we find it easy to stay there ("there" being absent on the BCL set next door) unless QRM is reported.

The fourth shelf down, a masonite operating table, that will house the receiver at the back (Disposals willing).

The antenna.—You will ultimately put up a complex rotary beam to put a better signal where you want it, to cut down received QRM and, last but by no means least, to cause less QRM yourself, on the "Golden Rule" principle. And all the others you've been trying that are doing unasked duty as parasitic reflectors, directors and absorption wavemeters will be eventually taken down to rest. Alas, at time of writing, we plead guilty with a vertical, the simplest while the beam is undergoing repairs and additions for 28 Mc.

And now, the results! Last week we contacted 90% of all called, and began to lose interest—too easy! But that was last week—using a Reinartz square loop pointing (theoretically) to VK7, ten countries in three days (14 Mc. phone) from VU via XE to ZL and 50% at S9 reports. This week, not so good!—guess we'd better get to work and put up that beam again! But 5LW contacted 4 Ws on his Type 3 Mark II!! So what can we really say?

At least you know you have sufficient power and it is easy to make full use of it.

Boy, oh boy, have I any ideas for the next new rig! Say, does anyone know a good antenna that will get DX? 5JK need not reply.

* 193 Young Street, Unley, S.A.

A.O.C.P. CLASS

The Victorian Division A.O.C.P. Class will commence on 15th January, 1948. Lectures are held on Monday and Thursday evenings 8-10 p.m. Persons desirous of being enrolled should communicate with the Secretary Box 2611W, G.P.O.. Melbourne; Phone FJ 6997 from 9 to 5, or the Class Manager on either of the above evenings.

R.S.G.B. CERTIFICATES

Prior to the war the Radio Society of Great Britain issued a series of Proficiency Certificates for long distance work. These Certificates were based on an Empire theme and all were keenly sought after by members and non-members alike. The Council wisely decided to wait awhile before reviving these awards. That time has now arrived and claims may again be submitted.

In the light of experience it has been decided to tighten up the requirements of the H.B.E. and to issue a set of General Rules for all Certificates with short Rules governing individual awards.

GENERAL RULES GOVERNING ISSUE OF ALL CERTIFICATES

The following general rules and conditions apply to all certificates issued by the Society, and should be read in conjunction with the conditions which govern the award of the individual certificates.

(1) R.S.G.B. Certificates will be issued free to corporate Members of the Society, and on payment of a fee of 2/6 (or an equivalent amount in other currency) to non-members of the Society.

(2) In the case of transmitting awards, claimants must certify, in writing that their licenced power was not exceeded in effecting the contacts upon which their claim is based.

(3) All claims must be sent by registered post and addressed to the—

General Secretary,
Inc. Radio Socty. of Great Britain.
New Ruskin House,
28 Lt. Russell St., London, W.C.1.

and each such claim must be accompanied by documentary proof in the form of letters or cards showing that two-way communication has taken place. A minimum Readability report of R3 and a Tone report of not less than T8 must be recorded on each card or letter submitted.

(4) Contacts with mobile stations (other than ships) located in the British Empire will be accepted providing that the exact location of each such station at the time of contact is clearly stated in the evidence submitted.

(5) British Mandated Territories and Protectorates will be regarded as forming part of the British Empire.

(6) Holders of an R.S.G.B. award are authorised to use the initial letters of the award followed by (C.H.) in personal correspondence. The letters C.H. signify Certificate Holder.

(7) In the case of any dispute concerning a claim, the decision of the Council of the Society will be final.

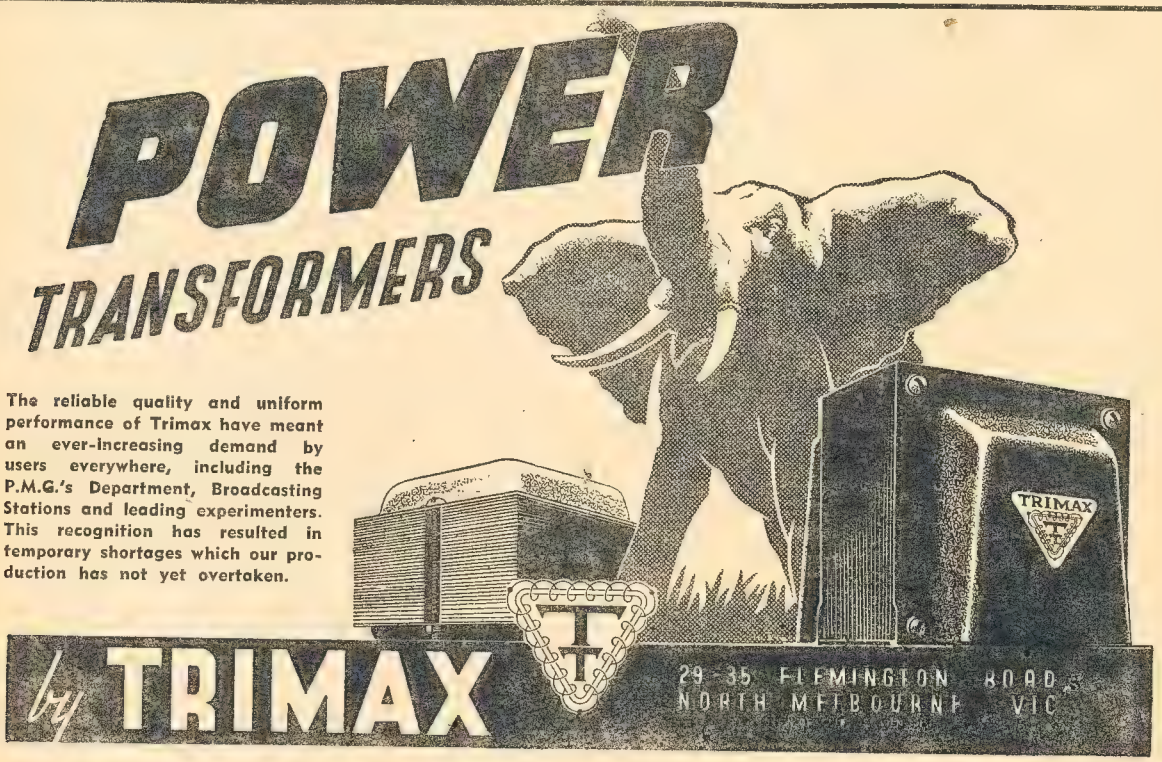
BRITISH EMPIRE RADIO TRANSMISSION AWARD (B.E.R.T.A.)

(1) The British Empire Radio Transmission Award may be claimed by any fully-licenced radio amateur who can produce evidence of having effected two-way communication on amateur frequencies, with Amateur Radio stations in at least 25 of the British Dominion Call Areas listed in Appendix I, and with at least 15 of the British Colonial Call Areas listed in Appendix II. Contacts may be made either on Telegraphy or Telephony. If all the contacts are made on telephony, the award will be annotated accordingly.

HEARD THE BRITISH EMPIRE CERTIFICATE (H.B.E.)

(1) The H.B.E. Certificate will be issued to any radio amateur who has received signals from Amateur Radio transmitting stations located in at least 25 of the British Dominion Call Areas listed in Appendix I and from at least 15 of the British Colonial Call Areas listed in Appendix II.

(2) In the case of licenced amateurs, confirmation of two-way contacts will be accepted as evidence of the reception claimed.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TRANSCEIVERS, 109's, S.T.C., 9 Valves, covers 80-metre band. Tube line of Receiver, 6U7's, 6K8's, 6B6's. Transmitter, 3-807's. Receivers easily convertible for local reception, 6-volt Vibrator operated. Price £12/10/0

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WORKED THE BRITISH EMPIRE CERTIFICATE (W.B.E.)

(1) The Certificate will be issued to any fully licenced radio amateur who can produce evidence of having effected two-way communication on amateur frequencies with at least one British Empire Amateur Radio station located in each of the five recognised Continental Areas as defined by the International Amateur Radio Union (North and South America count as one Continental area).

(2) Separate Certificates will be issued for:—

(a) Two-way Telegraphy communication on any amateur frequency band.
(b) Two-way Telephony communication on any amateur frequency band.
(c) Two-way Telegraphy communication on the 28 Mc. band.
(d) Two-way Telephony communication on the 28 Mc. band.

THE EMPIRE DX CERTIFICATE

The Council takes pleasure in announcing that a new certificate—to be known as the Empire DX Certificate—is to be issued to those who submit evidence of having established:—

(a) Two-way contact on 14 Mc. with amateur stations situated in 50 Empire countries or call areas; and
(b) Two-way contact with amateur stations in 50 different Empire countries or call areas **irrespective of the band** used other than 14 Mc.*

A list of Empire countries and call areas upon which claims are to be based appears below as Appendix I and II.

When the new 21 Mc. band becomes available to amateurs a special Empire DX Certificate will be issued to those who submit proof of two-way contacts with (a) 50 Empire countries or call areas on that band, and (b) 50 Empire countries or call areas irrespective of the band used, other than 21 Mc.

Up to now the British Empire Radio Transmission Award (B.E.R.T.A.) has been the only R.S.G.B. Certificate that compares with the well-known A.R.R.L. DX Century Club Certificate. The requirements for the B.E.R.T.A. are, however, rather less stringent than those for the DX C.C.

It is hoped that the Empire DX Certificate will become a yard-stick for measuring the achievements of amateur stations.

* Only one station in each call area may be entered irrespective of band, i.e. if VK2 on 7 Mc. is claimed a card from VK2 on 28 Mc. cannot be entered. In such a case it is, of course, in order to enter a card for VK2 under (a) for 14 Mc. and one for VK2 under (b) for one of the other bands.

W.B.E. AWARDS ONLY

The Council of the Incorporated Radio Society of Great Britain may, at their discretion, and on receipt of formal application, authorise the Secretary of a recognised Overseas Amateur Radio Society to approve claims from non-members of the Society. In such circumstances the Society in question will assume responsibility. All claims for the B.E.R.T.A. and H.B.E. Awards must be submitted to R.S.G.B. Headquarters.

APPENDIX I

The following is a list of the British Dominion Call Areas upon which claims for the "Empire DX Certificate," the "British Empire Radio Transmission Award," and the "Heard the British Empire Certificate" must be based:—

England	G	South Australia	VK5
Channel Islands	GC	West. Australia	VK6
Isle of Man	GD	Tasmania	VK7
Northern Ireland	GI	New Guinea	VK9
Scotland	GM	Newfoundland	VO1-5
Wales	GW	Labrador	VO6
Eire	EI	Nth. India (above 15° Lat.)	VU
Maritime Provs.	VE1	Sth. India (above 15° Lat.)	VU
Quebec Province	VE2	Burma	XZ
Ontario Province	VE3	New Zealand, North Island	ZL1
Manitoba Prov.	VE4	New Zealand, North Island	ZL2
Saskatchewan Province	VE5	New Zealand, South Island	ZL3
Alberta Province	VE6	New Zealand, South Island	ZL4
British Columbia Province	VE7	Cape Prov. ZS1,	ZS2
Yukon Territ.	VE8A-L	S.W. Africa	ZS3
N.W. Territ.	VE8M-Z	Orange Free State	ZS4
New South Wales	VK2	Natal	ZS5
Victoria	VK3	Transvaal	ZS6
Queensland and Papua	VK4		
Northern Territory	VK5		

APPENDIX II

The following is a list of the British Colonial Call Areas upon which claims for the "Empire DX Certificate," the "British Empire Radio Transmission Award," and the "Heard the British Empire Certificate" must be based:—

Aden	VS9	Kenya	VQ4
Andaman Islands	VU5	Kuiwait	
Antigua	VP2	Leewards	VP2
Ascension	ZD8	Lord Howe	ZK1
Bahamas	VP7	Malaya	VS1
Bahrein	VU7	Maldive Islands	VS2
Barbados	VP6	Malta	ZB1
Basutoland		Mauritius	VQ8
Bermuda	VP9	Montserrat	VP2
Bechuanaland		Nauru	
British Guiana	VP3	Nigeria	ZD2
British Honduras	VP1	Niue	ZK2
Brit. Somaliland	VQ6	Nth. Rhodesia	VQ2
Brit. North Borneo & Labuan	VS4	Nyasaland	ZD6
British Solomons	VR4	Palestine	ZC6
Brunei & Labuan	VS5	Pitcairn	VR6
Burma	XZ	St. Helena	ZD7
Caymans	VP5	St. Kitts	VP2
Ceylon	VS7	St. Lucia	VP2
Chagos Island	VQ8	St. Vincent	VP2
Christmas	VP2	Sarawak	VS4
Cocos Island	ZC2	Seychelles	VQ9
Cook Islands	ZK1	Samoa	ZM
Cyprus	ZC4	Sierra Leone	ZD1
Dominica	VP2	Solomons	VR4
Falklands	VP8	Sth. Rhodesia	ZE1
Falklands Dependencies	VP8	Sudan	ST
Fanning Island	VR3	Swaziland	
Fiji	VR2	Tanganyika	VQ3
Gambia	ZD3	Togoland (British Mandate)	ZD4
Gibraltar	ZB2	Tonga	VR5
Gilbert and Ellice Islands	VR1	Trinidad and Tobago	VP4
Gold Coast	ZD4	Turks and Calcos Islands	VP5
Grenada	VP2	Tristan da Cunha	ZD9
Hong Kong	VS6	Uganda	VQ5
Jamaica	VP5	Windwards	VP2
		Zanzibar	VQ1

MILLION-VOLT GENERATOR

We are informed that the Philips Laboratory at Eindhoven, Holland, has just completed the construction of a million-volt generator for the Oxford University. This high-tension installation is to be used at Oxford in the department of nuclear physics for converting one kind of atom into another. Meanwhile Eindhoven have already started on the construction of another new installation.

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FIFTY AND UP

COMPILED BY VK3QO

We have been requested by G5BY to publish the following:—

Any VK who was sending on 50 Mc. c.w. between 1000 and 1030 GMT on November 16-17 at the low frequency end of the band, would they please submit call sign, time, data sent, and frequency to G5BY or via VK5KL c/o. Dept. Civil Aviation, Darwin, N.T.

G5BY heard a DX signal and quite a bit of call, etc., and things sent, but so as to be authentic would like the stations who were operating to send above details as requested.

Only Interstate DX to report this month, and due to the fact that the "Mag" has to go to press earlier than usual, reports are rather incomplete.

On the afternoon of Saturday, 22nd November, 7XL and 7AB were both keeping a watch every half hour or so, when 7XL heard a signal and, on turning his beam, it appeared to come from VK5; it proved to be VK5QR testing. When he went over, 7XL gave him a call and a QSO, S9 both ends, resulted. After an over each the signals faded out at 1610 hours.

This contact is of interest, as it is believed to be the first VK5-VK7 contact on 50 Mc. Congrats, fellers. On the same day at about 1800 hours, 7AB heard several VK4s QSOing on about 52.5 Mc. 7AB called them without luck. 7XL's XYL was listening during that evening when 5QR "belled" through for about 10 seconds, talking about his contact with VK7XL! Both 7XL and 7AB keep a very close watch on the band whenever possible.

The band opened again on Friday, 5/12/47 from about 2000 hours to 2120 hours from VK3 to VK4. There were not many VK3s on that evening but a number of good contacts were made. Those active were VK3RZ, 3RR, 3HK, 3PG, 3FF, 3KX. The VK4s included 4CU, 4FB, 4ZU, 4RY, 4PG, 4AF and 4HE. It appears that at 2010 4ZU and 4HB were heard QSOing, and the strange voices attracted the notice of the VK3 boys, who promptly turned their beams North and "hopped in for their whack."

Signals were not as good as they have been before, running on an average about S8 with some QSB. It is interesting to note that it is just a year since the band opened to VK4 and VK3HK worked VK4RY again on the anniversary of their first contact!

On Saturday, 6/12/47, DX started early and 3RR, who had been unlucky in not making a contact the previous night, atoned by working them all on his own. Starting at 1745 he had a 20 minute S9 contact with 4FB (who was using a ground plane antenna only eight feet high). At about 1810 he heard VK2SL who did not answer a call. At 1820 4KK was worked, and then at 1850-1900 4RT, followed by 4CU at 1940. 3KX also worked several VK4s. On the same evening 5QR heard 3RR but did not contact. The band was also open from VK5-VK2 as 2OC, 2MQ, 2NO, 2TA, 2LX and 2FL were heard by VK5s.

The band seems to be improving slowly especially to the westward and sundry weak carriers are building up, so we never know but that VK6s will romp in!

After the sensational reports in the last issue it would be sacrilege to write a great scrawl about VK4 activity and that is about all we have to write about at the moment. As fast as a fresh page was written last month new DX came through and made the dope obsolete. However it was good while it lasted, and no regrets this end. Several of the gentry were caught with unselective receivers and paid rather a terrible price. The most amazing part of the whole show was the way the VK7s came through night after night at good strength. Unfortunately only a couple of VK4s (4HR was one) succeeded in working 7CW, but practically all 50 Mc. addicts in VK4 had contacts with 7XL and 7AB. A letter from 4RF in Dalby tells of reception by 4XN on 50 Mc. of several VK3s, and Fred also mentions that in a QSO with OK1LM in Prague the European mentioned that he was receiving W6s on 56 Mc. Possibly he meant 50 Mc., although he was quite adament about the frequency given.

VK3 FIELD DAY NOTES

At a previous V.H.F. meeting in Melbourne it was decided to hold an **exclusively 166 Mc.** field day on 7th December, 1947. However for some unexplained reason, all the boys, save 3ABA took only 50 Mc. gear, with the result that 3ABA, who adhered to the decision of the meeting, had the splendid total of only two contacts on 166 Mc. for the day. 3ABA was located at two miles north of Warrandyte, height 600 feet and he worked VK3ACM and 3EM with S9 signals both ways. Jim and Fred used their usual xtal rig with about half watt output on 166 Mc.

The "unofficial" field day on 50 Mc. was rather willing owing to the presence of 3PK (no free ads!) up on Mt. Buffalo. He was located at "The Horn," and his best contacts were with 3RR at Macrae (145 miles) and 3VL, portable at Mt. Bunniyong, near Ballarat. The 3VL-3PK contact was best with 165 miles approximately with S7 signals both ways, but was not line of sight due to higher ranges in between.

3PK worked also 3LS, portable at Mt. Macedon, 3HK at Mitcham, 3HT and other Melbourne stations, 3UI and 3ABG at Tatura and Avenel. Colin (3PK) is very rarely on the band but he sure put out a swell signal from Buffalo. He used a 1832 tritet into a 6V6 doubler into a 807 doubler final, with plate and screen modulation with 6A6 class B and 6A6 driver and audio with a carbon insert. Receiver was a converter. His power was from twin vibrator power packs.

3LS, at Mt. Macedon, used his usual portable 50 Mc. rig and worked 3RR, 3VL, 3RZ, 3ABG, 3PK and others.

3VL at Mt. Buninyong used an e.c.o. driving a 6V6 as straight final with 6V6 modulator and 5½ watts input; receiver was a super regen. He worked everything that was going and that's fair enough! Rex, 3VL, is on holidays and will be in Gippsland after Christmas. He expects to leave a trail of interest on 50 Mc. behind him!

3RR worked fixed portable at Macrae with usual xtal rig running 60 watts on 50 Mc. and 3 tube converter into a b.c.l. set.

3ABG, portable located 10 miles east of Avenel, was also a very interesting contact. His rig consists of a 1K5 c.o. on 6373 Kc., 1K5 doubler, 6SN7 two doublers, 807 straight driver and an 807 linear p.a. 1K6-6V6 mod. This unusual set up has the advantage that it only takes 30 Ma. at 70 volts in the exciter for 2 Ma. grid drive to final. Vibrator power supply is used. P.A. final uses Type 3 Mark II pack giving input of 10 watts. 3ABG got at least S8 from everyone he worked (and was he kept busy) and his phones, hanging on the steering wheel, were well and truly chattering.

3UI, at his home location, uses 40 watts to p.p. 807s and worked 3RR at Macrae, but it was not 100%, the signals were very weak. It is understood he worked 3HZ at Warrigal. He also worked 3ABG, 3LS, 3VL and 3PK. 3UI, at Tatura, is not in a very good location but it seems likely that consistent contact will be established soon between Tatura and Melbourne.

Taken on the whole a thumping good day was had by everyone and a lot of most interesting contacts were made. The strange thing is that 3XA on Mt. Mackay, only 20 miles away from Buffalo, and using about 60 watts, failed a fortnight ago to get through to Melbourne and only worked 3HZ at Warrigal. Don had the advantage of extra height (I think) also.

50 Mc. GENERAL NOTES

3RR continues to wear a big hole in the band and is the most consistent on the band. He calls at 12 noon, 3 p.m. and has a nightly sked with 3GM at Ballarat. He has a good receiver and keeps a close watch on the band.

3BQ is another of the regulars, but is feeling a bit sore because he bought a nice new mike and though

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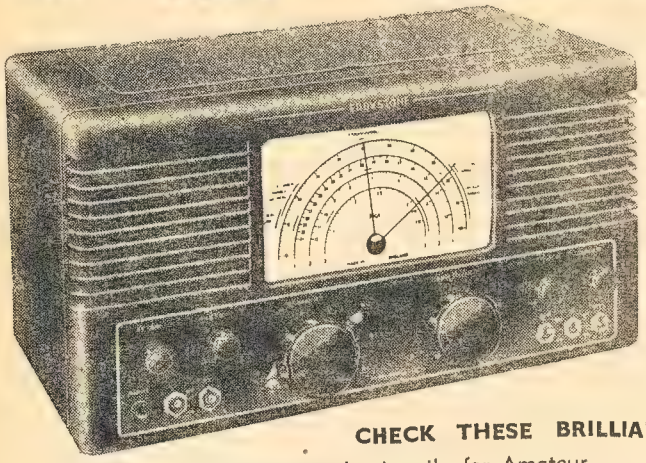

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he has had it several weeks, no one has noticed any difference! His beam is still up, though a butcherbird was seen sitting on it in a contemplative sort of way!

3VL, at Red Hill, also does his share in keeping the band open. His XYL, Gwen, has got her ticket now —VK3US. Whacko, two Hams in the family now! Rex collected a scalded foot just before his holiday so he must have done his journeying under some disadvantage.

3ZL has his rig going on 50 Mc. again from Ballarat and it will be interesting to see how his signals compare with his old rig. Some of the Melbourne boys get 3GM best, and some get 3ZL best. In fact 3HK can hardly copy 3GM usually.

Keith, 3HK, listens a good deal and puts in much hard work on his receiver which he now has covering from 3.5 Mc. to 56 Mc; he has just finished calibrating it. His 50 Mc. converter now uses 6AK5 r.f., 955 as triode mixer and 6V6 oscillator.

3YS is on occasionally, also 3GG and 3CP. 3RZ and 3FF are two very good new signals and 3YJ is back on the air again with very nice quality and strength.

166 Mc. JOTTINGS

3ACM kindly provides a good service on 166 Mc. by relaying 3WI's Sunday morning bulletin. He has just moved into a brand new shack while around Xmas time a few recruits were wanted to hoist the new toothpick.

3MB was on with his portable rig working 3ACM and 3MN.

3QE, 3ZT and 3EO should be on this band by now and possibly 3BW. 3EM is on three or four times a week while 3AKI is busy rebuilding on 28 Mc. 3FB is another just starting in by wrapping his dipoles up on a 80 foot neon sign.

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Many expressions of surprise and regret have been received from overseas stations over the non-inclusion of ZL in the recent international contest staged by the W.I.A. There probably are good reasons for the absence of ZL from the contest, but DX stations seem to expect the contest to be VK-ZL and are disappointed to find such is not the case. Might be worth reconsidering when next year's contest is being framed.

Stamp collectors please note that F8BS, P. Bonichon, 134 Boulevard, Victor-Emmanuel 111, Bordeaux, is desirious of exchanging stamps with an Australian contact.

Recently had the pleasure of viewing the QSL card of W7ACS/KH6 confirming the then record breaking contact on 50 Mc. with VK5KL in Darwin—despite the fact that three-quarters of a million cards have passed through my hands in the last fifteen years, I got quite a kick out of seeing this one.

Frank Hine, VK2QL, keeps the PK6HA ball rolling by stating on 18th November that despite sending two cards to Lt. Hagers none has come back. Guess Lt. Hagers will give you special attention Frank. VK2QL also states he did the right thing by XU1YR (see paragraph in November issue) and hopes his card is one of the four received by XU1YR.

Cards still continue to come in for VK1 stations wherever they are. Would like some information if any available. Can any VK2 stations help out?

Recent advices show that VK3IU and VK3QH are having a great time in the U.S.A. and have enjoyed meeting numbers of the Ws.

The old, old reminder again. Please don't forget to send that stamped addressed envelope to your State QSL Manager. It helps him more than it helps you. Also let him have your change of address promptly as supplements to the call sign list will only appear quarterly.

FEDERAL NOTES

HAMS WHO LOST THEIR LIVES DUE TO SERVICE

VK2AJB—G. C. Curle
VK3DQ—J. D. Morris .... A.M.F.
VK3HN—J. McCandlish .... A.M.F.
VK3IE—J. E. Mann .... R.A.N.
VK3NG—N. E. Gunter .... M.N.
VK3OR—M. D. Orr .... R.A.A.F.
VK3OW—G. L. Templeton R.A.A.F.
VK3PL—J. L. Colthrup .... R.A.A.F.
VK3PV—R. P. Veall .... A.M.F.
VK3SF—S. W. Jones .... A.M.F.
VK3UW—J. A. Burrage .... R.A.A.F.
VK3VE—J. E. Snaddon .... R.A.A.F.
VK7LP—L. P. Hyland .... A.R.P.

The above names and details are the only ones yet received by Federal Executive, of Hams who lost their lives due to War Service. Anyone knowing of further names that may be added to our Honour Roll, please communicate with Federal Executive at the earliest. Any corrections to the above list would also be appreciated.

LIST OF CALL SIGNS

Alterations

VK3AJB—J. Batchler, Transmitting Centre, Diggers Rest, Vic.
VK3MI—R. H. Cunningham, Bruarong Road, Frankston.
VK3PD—G. D. Clarke, 83 Queen's Road, Melbourne, S.C.3.
VK6FW—F. W. Beadle, 34 Woodroyd St., Mt. Lawley, W.A.
VK6QF—Q. F. Foster, R.A.A.F. Station, Pearce.

New Issues

VK2ACM—M. Cowan, 68 Ocean St., Woollahra, Sydney, N.S.W.
VK2AFW—A. F. W. Taylor, 262 Gardiners Rd., Kingsford.
VK2AJE—B. L. Mills, Newington College, Stanmore.
VK2ARR—G. du M. Conolly, 24 Moore Street, Roseville.
VK2VB—R. E. Wood, 17 Downing St., Epping.
VK3AWO—A. W. Oakes, 1 Palmer St., Oakleigh.
VK3AWW—W. A. Wells, 23 Waterloo Street, Camberwell.
VK3EE—C. E. Fredrickson, 44 Westley Street, Carrum.
VK3PT—V. S. Thomas, 315 Malvern Road, South Yarra.
VK3TC—L. M. Renshaw, 66 Donne St., West Coburg.
VK3VA—W. B. Bridges, 4 Lexton St., Ballarat.
VK3VC—R. K. Wicks, 35 Berry Ave., Edithvale.
VK3WM—J. K. Cosgriff, 9 Donald Rd., Burwood.
VK7LT—L. E. Templeman, 3 West Tamar Rd., Trevallyn, Launceston.

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DIVISIONAL NOTES

NEW SOUTH WALES

Secretary: Peter H. Adams, VK2JX Box 1734 G.P.O., Sydney.

Meeting Place: Science House, Gloucester and Essex Streets.

Meeting Night: Fourth Friday of each month.

NEWCASTLE DISTRICT

A visitor to 2FP was 2TY who passed on news of the Maitland gang; result, 2FP will make 166 Mc. 2TY, 2ADX, 2AKP and 2JZ (making a comeback) are all on 166 Mc, S9 all ways. 2DG must be congratulated on his 14 Mc. DX contest effort and should be near the top, congrats Keith. 2OS, of Thornton, is doing good work on 7 Mc. phone. 2VO, an old-timer who is going to stage a comeback, has some fine home-made gear and will make a lot of noise when big switch is closed. 2BZ is holidaying at Nelson's Bay and should have some good fish stories for 50 Mc.

2AHA mainly on 50 Mc. with a nice signal. 2AFS is missed from the air, has been in hospital; early comeback expected. 2ANG now has his beam really working on 14 Mc. 2PQ has just fixed up wogs in the modulator and is now f.b. 2TE, nil heard lately. 2WU what's doing Lou? 2AGD sticks to 28 Mc. and is building a fine Rx. 2CI has a converter on 50 Mc. and is busy with Tx. 2CS has Rx and v.f.o. finished, won't be long now. 2FP is going to put a new rig on 28 and 166 Mc. and would like some notes from Maitland monthly. Season's greetings to all from 2FP.

COALFIELDS AND LAKES ZONE

2KZ's motto is "W.A.S. or bust," that's on 28 Mc., ask Max about his S meter; expects a visit from W6ZOX in January. 2YO is heard on 7 Mc. and has definite ideas on overmodulation. 2KF mostly on 14 Mc. and will shortly make 28 Mc. A nice pole is erected, maybe a beam is under way. 2TY seems to work 28 Mc. regularly and makes 166 Mc. at times. 2XT spends most of his time on 7 Mc. phone; what about that combined 7, 14 and 28 Mc. beam? 2MK not active, has gear dismantled. 2PZ is another 7 Mc. fan talking of rebuilding some of the disposals gear on hand.

2ADT devoting much time to 50 Mc. and has VK3, 5 and 7 contacts plus many VK2s as a reward; uses a 3 element beam either vertical or horizontal. He was in Sydney for the last V.H.F. meeting. 2YL putting in most of his time on 50 Mc. with nothing startling to report. 2OC has some really fine gear going, the shack is really a Ham's paradise. Has a three element rotary on 50 Mc. 2RU has also some fine gear and devotes most of his time to 50 Mc. Little news of Lakes chaps, 2KR mainly on 7 Mc., 2AEZ and 2AIO on 14 Mc. Merry Xmas and plenty of DX in 1948—73 2YL.

WESTERN ZONE

2NS has been heard working portable from Sydney. 2JC on 7 Mc. with a 816 plate modulated (how do you plate modulate a mercury vapor rectifier—Ed.) and AR8. 2BT is on 7, 14 and 28 Mc. with a separate Rx and Tx for each band. Uses a 4 element on 28 Mc. and a 2 element vertical on 14 Mc. 2ALX has his AT20 on 28 Mc. now. 2AWR intends rebuilding using p.p. 807 audio and r.f. 2TH using AT5/AR8 combination with batteries. He has a separate rig on 28 Mc. 2AMR still rebuilding his shack, should be some shack!! 2II uses a selsyn indicator on rotary and has car number plates same as his call sign. 2ACT still on 7 Mc., power comes from engine-driven alternator. 2WH still likes gaseous discharge valves.

2PN has established a 50 Mc. channel with 2TA. 2QA rebuilding receiver and dreaming antennae. 2AFV using commercial Tx (motor tuned), powered from engine and alternator. 2ACP on 7 and 14 Mc. c.w., surely can pound the key. 2LY still rebuilding, is on 7 Mc. with new mike and speech line up. 2AFO does some good work in getting out from a shielded QTH on 50 and 166 Mc. 2ALR uses a 2 element rotary on 14 Mc. when XYL allows respite from gardening. 2LZ on 50 and 166 Mc., complains of power leak. 2HZ's receiver will be ready for Xmas; which one? Season's greetings from 2QA.

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SOUTH COAST AND TABLELANDS ZONE

Big news is that 2TA, in Young, has worked 2JU, in Sydney, on 50 Mc. and 2PN, in Tumut, has heard 2JU. These distances are 170 and 200 miles respectively. Contacts such as these greatly encourage 50 Mc. work in the country and already several Amateurs in this Zone are building for 50 Mc.

2ALS is building small Tx to replace the l.f. portion of his AR8. 2DO worked ZM6AI on 7 Mc. phone, has quite a list of DX on this band. 2GU also heard 2JU on 50 Mc. and is building for that band. 2AKE is getting busy with fire emergency gear. It is reported there are 13 new Hams in Canberra, thanks to a class conducted by VK2ALD. If you have any news whatever about Zone activity please send it to 2ANN, Box 73, Bega.

SOUTHERN ZONE

Wanted at Albury monthly is news of the Wagga gang, forward to 2OJ early each month please. 2OJ is holidaying at Cronulla and is due back shortly. 2ANQ returned from Western Victoria where he met 3TA, 3NY, 3KR and ex-3RG; is now the proud possessor of a 10 tube super. 2VK is a man of leisure since 2ANQ returned; dancing has taken over from radio. 2AIS was last sighted headed towards Yarra seeking disposal bargains. 2EU is progressing with building new QTH. Ham Radio is out and definitely doesn't like "Gremlin." 2APW a busy man since becoming proud father of Bronwyn Margaret, rather modest about it. 2AIZ will be holidaying at Bathurst soon—73 2APW.

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Telephone: FJ 6997

Meeting Night: First Wednesday of each month.

Meeting Place: Radio School, Melbourne Technical College.

The Victorian Division State Convention will be held on Saturday, 7th and Sunday, 8th February.

Full details of the Convention have not yet been worked out but will be forwarded to Zone Secretaries as soon as possible and broadcast over 3WL. All members have suggestions for improvement in the general organisation of the Division and the facilities it offers are invited to submit them to Zone Secretaries in the case of country members, and for metropolitan members to the Honorary Secretary of the Division by letter no later than 21st January, 1948.

Intensive discussions have taken place to review the official organ "Amateur Radio" and from these talks it is intended to give to Amateurs and Radio Enthusiasts alike, that which they seek in the magazine.

In the February issue it is hoped to present the first of the many proposed changes to take place in the layout and text matter with future issues to be still brighter and better.

Whilst the annual dinner of the Division, at which Mr. L. Pearson and Mr. F. Punch of the Wireless Branch of the P.M.G's. Department were guests, was an unqualified success from a fraternity point of view, our President (Mr. R. Cunningham) pointed out at the last general meeting the desirability of more complete co-operation and willingness on the part of all to participate in not only at these functions, but also in other directions to assist in the workings of their divisional interests.

It is with sorrow that we learn of the ill-health of our Treasurer, Mr. Jim Marsland. His enforced absence from work for some months, we feel sure, will restore him to good health once more, and a letter expressing our sentiments and good wishes has been forwarded to Jim from this Divisional H.Q. It will be difficult indeed to fill the position of Treasurer, temporarily, that has been so efficiently and capably handled by him. "We all wish you 73 and speedy recovery Jim."

A major note of interest is that permission has been granted the use of a tower for the erection of a new antennae system for VK3WI. With this new installation a full coverage of transmission is expected to bring news of divisional interest widely throughout the country.

"FOOD FOR BRITAIN" APPEAL

We have at last reached the 200 mark in parcels despatched to the R.S.G.B. after nine months of operation which is most gratifying to the Committee, and is much appreciated by the recipients in Great Britain.

Our total receipts to the Fund have also passed the £200 mark. The total stands at £216/19/5 received, total expenditure on food parcels is £179/1/10, and the cash in bank at £37/17/7. We wish to express our appreciation to all who have helped in any way in the Appeal, and trust that the New Year will see the same unanimous spirit of co-operation that pertained in the old.

At the December meeting of the Division, a Class C Wavemeter was raffled and was won by VK3ZC (this is getting to be a habit with John), the draw being made by a visitor, VK7KA. The raffle yielded the sum of £7/10/9, not up to the usual total (no doubt due to the amount of Disposals gear in the offering) and the box collection resulted in a further sum of £7/12/-.

We acknowledge with thanks a donation of £4/13/- from the Central Western Zone, being money left in hand from the old Western Zone before its sub-division into three Zones. We extend our thanks to all concerned. The Zone Organisers are still waiting to receive your donations, so keep them posted. We hope to have details of further raffles, etc., for the next issue of "A.R."

CENTRAL WESTERN ZONE

These notes are going to be thin this time as the writer has not been very active and time is so much shorter, however we have all recovered from the Maryborough convention.

3TA has a new twin beam, 3 element 14 and 28 Mc. perched on top of a 40' telephone pole. Byron is going very nicely and now has about 50 countries up by using a v.f.o. No doubt about it, beam plus v.f.o. equals DX. Byron at present has regular skeds with two or three Gs, for the present he has laid aside the 50 Mc. beam as his time is limited, and he does like to work a few. He is also

building a separate p.a. for each band in the near future.

3WC is still listening on 50 Mc. using a beam; heard much yet Claude? 3AGB is now plate modulating his Type 3 Mark II and putting out an f.b. signal on 3.5 and 7 Mc. Pete thinks 3.5 Mc. is by far the best band for a good rag-chew and no doubt many will agree with him. He is putting together a new receiver and a 50 Mc. converter to go ahead of it. This, with the necessary doublers, etc., after the Type 3 will put Warracknabeal on the 50 Mc. map. He will run this outfit as a home rig (not portable) and should hear some signals as hills just don't exist up that way.

3XG, a new-comer to the Zone, is at present busy on 14 Mc. but hopes to be on 7 Mc. phone soon. Be pleased to hear you in the hook-up Ben.

3GN well where have you been George. Heard a ZL calling you on 3.5 Mc. one Saturday night but no you, maybe he was calling a pirate. Ye scribe of these notes got sick of 7 Mc. and scrammed off down to 28 Mc. the other night and was pleasantly surprised after about 12 months absence to find the band still there and doing business very nicely. Even found the new 21 Mc. band on the way there, but that is by the way. After ambling around 28 Mc. for a while, went back to 14 Mc. c.w. and had a nice quiet time working Cs and KHs.

3AKW was worked the other night on 3.5 Mc. A nice signal Bill and Carmel can sure modulate the Tx very nicely. 3AX is having a spot of bother, but no doubt is clear of it by now.

Cheerio gang till next time and may we all make the DX C.C. next year.

QUEENSLAND

Secretary: R. Thorley, VK4RT, Box 638J, G.P.O., Brisbane.
Meeting Place: State Service Building, Elizabeth Street, City.
Meeting Night: Last Friday in each month.

Preparations are well in hand for the election of a new Council, etc., for 1948 and country members are reminded that nominations for Office-Bearers must be to hand by the last Friday in January. Ballot papers will be forwarded to members and these must be returned by the last Friday in February, when the election of Office-Bearers will be held, so if you want your member to get in, please return the papers back promptly.

We are advised that numerous certificates are in the course of preparation in the south, including membership certificates, W.A.S. Certificates for 50 Mc. and above, DX Contest Certificates and Trans-Tasman Certificates. We know of quite a few VK4s with greedy eyes on that W.A.S. for 50. At long last the Institute log books are to hand and if you want one it might pay to hurry up the application for same—price is approximately 6/6. They are 11" by 9" loose leaf style and should be quite good for the job.

An associate member, who prefers to remain anonymous, has presented an Admiralty Handbook (Vol. 1 and 2) to the Institute's Technical Library. Our thanks OM, and in passing we would like to thank Charlie Walker (4CU) for his recent gift of magazines to the Library. A welcome is extended to several new members: 4DB, 4LD, 4WO, 4DC and associate members C. Rosser, A. Addis, A. Warren, R. Wilson and M. Dwyer. Glad to have you with us OMs.

The Disposals news this month is that we have at long last taken delivery of the SCR522s, new and used varieties. The Class C Wavemeter position which seemed so secure is a little uncertain at the moment, but promising at least. It has been the finding of the Disposals Committee that unless the gear is actually taken delivery of, it is liable to be snitched away at the last moment. A very high degree of patience is called for when dealing with these people. They are a "darned sight" worse than Hams.

An illustrated description of 4WI will be published in this magazine in the near future. The operator, 4FN, reports that the frequency measuring service is immensely popular with interstate Hams. The frequencies of 4WI were wrongly reported in the November issue of "A.R." and the good gen is 7100, 14342 and 52004 Kc.

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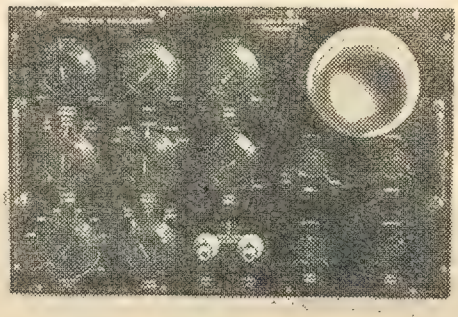

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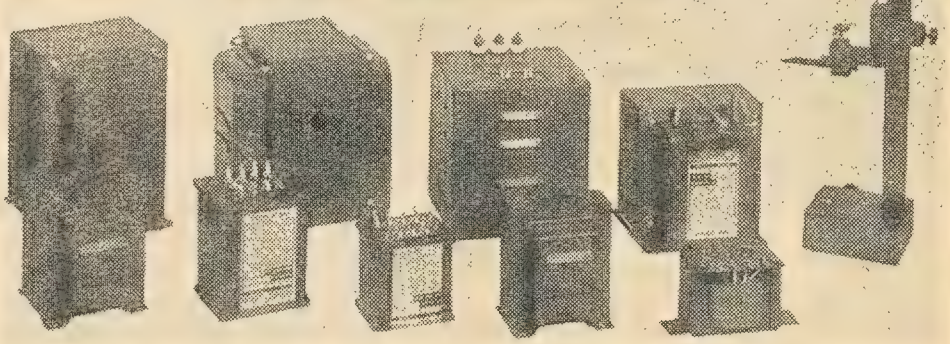

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SOUTH AUSTRALIA

Secretary: E. A. Barbier, VK5MD, Box 1234 K, G.P.O., Adelaide.
Meeting Place: 17 Waymouth Street, Adelaide.
Meeting Night: Second Tuesday of each month.

Included in the same envelope as my three figure fee last month was a short note from the Editor to the effect that all copy for this issue should be in hand a least a fortnight ahead. This was something of a blow because my spies, investigating officers, and "yes" men were not due back for at least three weeks. Coupled with this was the fact that I had been counting on the general meeting and also the annual Xmas dinner for some copy, but these two events were not due until after copy would be in the printer's hands. Therefore all this "splurge" is but a lead up to an apology for the somewhat short notes in this issue.

When the enormous enthusiasm over nominating the new year's Council members had subsided, it was found that the same old reliables had been voted in again with the exception of Ross Harris (5FL) who had previously signified his intention of not standing for office due to the expected complexities of house building. Joe Kilgariff (5JT) was another Council member who was a non-starter and we extend to both these gentlemen our appreciation of their worthy efforts. One of these days some member is going to make a mistake and nominate somebody new as a Council member with severe shock to the nervous system of all the regular Council members who, year after year, shoulder the executive work of the W.I.A., S.A. Division. Of course it could be that the Council is doing such good work that the members do not want any change!

Council members are Hon. Secretary, "Doc" Barbier (5MD); Hon. Treasurer, Cec. Baseby (5BZ); President, Hal Austin (5AW); Custodian of Test Instruments, Frank Wreford (5DW); Members' Organiser, Joe McAllister; Disposals Officer, George Ramsay (5GD); Programme Officer, Gordon Bowen (5XU); and Publicity, "Pansy" Parsons (5PS).

Mr. Ross Harris (5FL) is handling the disposals material of which brief mention was made at the November meeting. No information as yet to hand but record applications are reported for gear ranging from crystal blanks to caterpillar tractors.

A suggestion to these high speed expert c.w. blokes who are creeping into all bands. High speed does not necessarily mean good sending and don't forget that quite a few Hams are in this grand old hobby for relaxation. Quite a few of them are using a key all day at their vocation and probably sending and receiving at intelligent speeds far above your capabilities. To the few speed merchants who have forgotten to remove their boots, might I point out that a better grip can be secured with the boots off. The secret is all in the big toe.

Several members in VK5 will not be receiving this copy of the magazine because annual subscriptions and the magazine go together. Of course they will "winge" and "howl" but you cant shut your eyes to the fact that "no subs," "no magazines."

Gordon Bowen (5XU), who is a cane wielder at Woodville High School, is also responsible for the amateur licence granted to that school. If you hear 5WH on the air at anytime give them a shout.

Joe McAllister is organising a sports day for members and their families to be held on 25th January, 1948, which will coincide with the National Field Day. Joe was one of the Committee who did such a good job with the last outing, so a good time is assured for all. A strict watch will be kept on Cec. Baseby (5BZ) to see that he does not roll up his pants to the knees as he did last year near the ice-cream stall for the kiddies!

You all thought I was joking when I told you that Jack Lester (5LR) was going around at night with an axe looking for any masts higher than 20 feet in his neighborhood. Well Alan Gooley (5AO) does not think it a joke as his 40 feet mast crashed a couple of days after publication of these notes. Look out Brian (5FQ).

Just by the way of starting a controversy, commercial stations 5DN and 5RM (Renmark) are fully manned on the technical staff by amateurs, ten in all, including the chief engineer. Can anybody beat that.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI, Sundays—
1100 hours E.S.T., 7190 Kc.
2000 hours E.S.T., 50.4 Mc.
No spot frequency checks will be available from VK2WI.

VK3WI, Sundays—
1130 hours E.S.T., 7196 Kc.
Spot frequencies every fourth Tuesday on 7 Mc. between 7000 and 7200 Kc., every 10 Kc. Individual frequency checks of Amateur Stations given when 3WI is on the air.

VK4WI, Sundays—
0900 hours E.S.T., 7100 Kc.
0900 hrs. E.S.T., 14358 Kc.
0900 hours E.S.T., 52.4 Mc.
Frequency checks are given two nights weekly. Hours are announced during the Sunday broadcasts.

VK6WI, Sundays—
Station used is VK6WH (for official news).
0930 hrs. W.A.S.T., 7168 Kc.
No frequency checks are available.

VK5WI, Sundays—
1000 hrs. S.A.S.T., 7195 Kc.
Spot frequency checks may be obtained from VK5DW on Friday evenings on the 7 and 14 Mc. bands.

VK7WI, 2nd and 4th Sundays—
1030 hours E.S.T., 7174 Kc.
No frequency checks are available from VK7WI.

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Having reached the depressing age when the sweet young things at the office call me "Sir," when my Boer War wound aches in damp weather, and when I recognise the enthusiastic ideas of the young associate member as something I tried out years ago, you can imagine my pleasure at the last general meeting when two very obvious young associate members seemed quite anxious to engage me in conversation. Aha! I thought, somebody has pointed me out as the ace correspondent for "Amateur Radio" and possibly they want my advice. With the whole 26 chapters of the A.R.R.L. Handbook flashing through my mind, I smiled and said "Could I help you." "Well," they said, "we were having an argument which only you can settle." "Certainly," I said, "go right ahead." Taking a step forward one of these charming associate members gently prodded me in the "bread basket." "I win," he said, turning toward his friend, "there's no pillow there," and with that, these two disgusting examples of modern associate membership walked off still arguing volubly. Can I help it if I have a fallen chest?

At the last Council meeting a vote of appreciation was recorded in the minutes for the splendid work that Reg Harris (5RR) is doing at the official W.I.A. South Australian Division Station (5WI). Only those connected with this Station realise the amount of work involved and a special pat on the back should go to Joe McAllister for the amount of work he puts in behind the scenes.

"Wick" Bayly (5WM) is having trouble in getting a hat to fit him since he contacted a D4 on c.w. with a 5-8-9 report. Good work "Bendix."

With the advent of the new year most Amateurs have made and broken a few new resolutions. Might the suggestion be offered that "Hi, Hi" on phone be cut out, "we" do this and "we" do that could be forgotten, and when the beginner gives you QRS don't lose him in the "QRM."

VK5 Amateurs wish all VK Amateurs "A Happy New Year" and loads of DX, and don't forget if you pass through Adelaide at any time we will make you more than welcome.

WESTERN AUSTRALIA

Hon. Secretary: W. E. Coxon, VK6AG, Howard St., Perth, W.A.
Meeting Place: Builders' Exchange, St. George's Terrace, Perth.
Meeting Night: Second Monday in each month.

As "A.R." went to press early, notes for the December meeting will not appear until the February issue.

The Annual Dinner, held on the 5th of the month, proved to be an outstanding success, and we feel sure that everyone left feeling well-fed, and at peace with the world. The Committee wishes to thank all those

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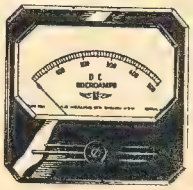

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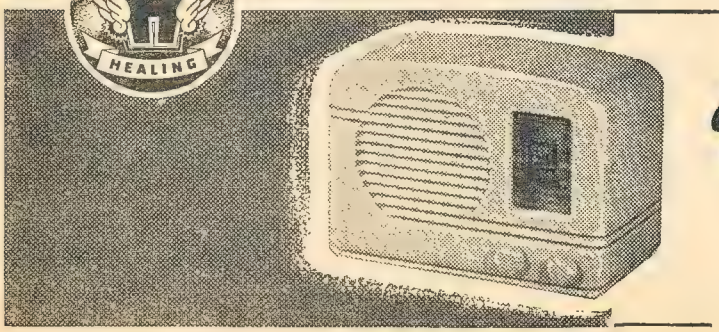

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who attended, especially the Country Hams, for helping to make the evening enjoyable.

The office of Surplus Gear and Exchange has now been considered to be unnecessary, so from now on this activity will cease to exist. All those wishing to purchase second-hand gear, or having some for sale, are advised to give full details to the Secretary, who will insert the advertisement in the monthly Bulletin, at a small cost.

PERSONALITIES

6RU has gone v.f.o., using a Bendix type Transmitter as a source of signal. 6MB has now a new 28 Mc. beam, which seems to be working out very well. Been heard lately working some f.b. European DX. 6MY often heard working 7 Mc., among the rag-chewers. What about a bit of DX Mal? 6FW has now found a new use for a bedstead. Yes, believe it or not, Fred is using his bed for antenna, and it doesn't work too badly either for the local contacts. Marriage has caused a cramping of the quarters somewhat—eh, old man? 6WT has been very busy erecting new antennae. Dave reckons to give the DX boys a run for their money, shortly. 6KW has now re-built his entire beam, and has also gone v.f.o., using the same type of signal source as 6RU.

Since shifting to his new QTH, 6TW has been very quiet. However we believe he is going ahead with a new antenna system, and should be heard shortly. 6IG makes a surprise visit to 7 Mc. occasionally, and works a few of the locals. 6JS has now two new long-wire antennae, and is on the air properly at last. Heard working regular skeds with 3KU and 3DH. 6WH still a regular on 7 Mc. and still doing the W.I.A. broadcast on Sunday mornings.

6AG has quite a fine turn-out in his "hills QTH." Some of the local boys, especially Subiaco-ites, envy Wally's freedom from local QRM. 6HL is still experimenting with 28 Mc. beams. His latest we believe is a 4 element job having a second reflector 0.15 above the driven element. 6SA, the State's c.w. hound, regularly works 14 Mc., and works some fine DX without a beam. 6FL, another c.w. expert, although heard on 28 and 14 Mc. phone quite regularly.

6JW is a newcomer to VK6 with quite a f.b. 14 Mc. phone signal. 6LM is a 7 Mc. band warmer—always there for a rag-chew at week-ends. 6YZ can always be worked on 7 Mc. 6CM has a new Junior Operator, so has a new pastime as nurse-maid once again. 6BC spending quite a lot of time lately with his new Bendix receiver, which we believe he is now using quite nicely on 14 Mc.

DX OF MONTH BY VK6RU

For the last two weeks now, conditions on both 28 and 14 Mc. have been anything but desirable except for an occasional day or so when a few continents put in an appearance.

28 Mc. Phone.—This band showed good promise early in the month, when day after day DX was coming through from all directions. But by about the 15th of the month, the band became very spasmodic and the anticipation of a bumper month of DX fell through.

Europe.—Gs once again have been in the majority, and from the Continent F8YW, 8EO, 8TU, 8XT, 9WT, 3GL, 9BE from France; I1PB, 1LW, Italy; LX1JW, Luxemberg; D4AWJ, 4AVI, Germany; GM3XB, 6MS, Scotland; SV1RX, Greece; HB9FU, Switzerland, have all been good QSOs. A couple of rare ones in LZ1AB, Bulgaria, and EA1MO, Spain, were heard but sad to relate not worked—nevertheless they'll be heard again.

Africa.—From the Union, in the south, a few of the boys were worked but not with the signal strength only too well known during the past winter months. ZS2CI, 1DJ, 5BZ, 6CM were the only QSOs resulting. From East Africa VQ4ASC, Kenya Colony, was a nice catch—6RU being his first VK on 28 Mc. phone, and from the North, ST2JF Khartoum, MD5AF Suez Canal Zone in Egypt provided the remaining African contacts.

Oceana.—The ZLs have been in the minority this last month—ZL1HY being the only one worked and as far as the rest of the Pacific area is concerned, only the usual signals from KG6 and KH6 put in an appearance.

Asia.—Quite a few new calls are appearing from this area, V5s in particular and not forgetting the VUs. While on the subject of VUs it is believed that Pakistan is about to be classified as a new country in the eyes of the DX Century Club and this independent state almost bristles with Hams from the number worked recently (information from VU2KP). HZ1AB, Sandi Arabia, has re-opened again; as the chief op. there puts it "an entirely new crew has taken over" and what's more they like working VKs. They also have a different type of QSL so he's worth working. MD6AR, Iraq, was a nice contact—it may be remembered that YI was their previous prefix.

North America.—The Ws have been fairly regular during week-ends from about 0630 onward, and many QSOs have resulted S9 plus both ways from W1 to W0 (North Eastern States). VEs from Canada have also been numerous, those worked being 7KH, 3LB, 7UW, 7EB, 7ZM. One or two VE8s from the Yukon were heard but not worked. KL7LO, Alaska, was the only other North American worked.

Central America.—VP9F, Bermuda, worked across Canada was a surprise one on a Saturday morning about 0750, when the QSO was held for 50 minutes. According to great circle observations, Bermuda is the same distance from Perth irrespective of what direction is taken and this country is always an interesting contact as the signal path can vary. VP9F has been worked in the early evening on 14 Mc. to the South East, in the early morning on 14 Mc. to the North West across Europe, and now on 28 Mc. to the North East across Canada. It only remains now to work him on 28 Mc. in the late evening across Europe.

14 Mc. Phone.—Very little this last month has been done on this band, as conditions generally have been so poor, but what has been worked has been the "pick."

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this coming month in the late evenings according to last December's log and the only contacts made last month were GI6TK, Northern Ireland; OZ5HQ, Denmark; SV1WE, Greece; and OK1KX, Czechoslavakia, who was worked early one morning, and G8IG and G2MZ were the only two from the old country.

North America.—Few Ws have put in an appearance in the evenings but the early morning activity across South Africa is showing promise and within the next few weeks the "before breakfast" QSOs with this country should be getting regular. VE1BV was the only Canadian worked at 0610 one morning across Europe.

Central America.—Two nice QSOs were TI2MA, Costa Rica, and VS1JR in San Salvador.

South America.—Our friend Victor —HK1FQ—has been still the most consistent, and another catch was YV5AY, Venezuela.

Oceana.—The only two from this Pacific area were VR3A, Washington Island (adjacent to Fanning Island), and KP6AA, Palmyra Island.

One item of interest to VK6s is that VK3AMG has changed his QTH to Heard Island (Antarctic Expedition) and should, according to press reports, be down there early in the New Year, so who is going to be the first VK6 to work Antarctica—thought there were only six possible continents but maybe there will be seven with the gang going to Heard Island.

TASMANIA

Secretary: J. Brown, VK7BJ
12 Thirza Street, New Town. 'Phone W 1328.
Meeting Place: Photographic Society's Rooms, 163 Liverpool Street, Hobart.
Meeting Night: First Wednesday of each month.

Owing to this issue's early deadline, there is not much to report apart from the catas—er—field day which took place on 23rd November.

Expecting the worst, after 7KA had been given the job of planting the transmitter, most of us took care to add "sense" to the loops this time. In one or two cases, it seemed to make them feel a bit happier about going in the wrong direction.

The grassy slopes of Queen's Domain as usual attracted everyone for the first bearing. Some worried minutes went by before the Type 3 Mark II, with its call sign and dash disc, was heard to start up and then began the big dispersal.

To deal with the brighter side first, 7CW couldn't have done much better had he been told where it was. Up to Risdon, over on the ferry, along the Richmond road and then about a mile up a gully behind Mount Direction went Crosby, to be confronted with KA's van and lots of thick bush. He was joined shortly by LJ and TR working together. Between them they quartered the underbrush for an hour, passing sometimes within a few yards of Syd, who was vainly trying to get some buzz out of an electric fence—nice chap. CW eventually ran into the aerial and came in first, his time and distance making up 185 points. LJ and TR followed a quarter of an hour later with 294 points, having covered a few more miles before crossing the river. Then followed a long, hungry wait before Barney Watson appeared a little after 1 p.m.

Meanwhile, even other cars were doing it the hard way, up around Bridgewater and in on back roads. BJ found one he "wouldn't have taken a jeep over in cold blood," cleaned some surplus metal off the bottom of the Vauxhall, called it a day and came in per envelope. YY dropped his receiver early in the piece, knocking some paint off a nice new car in the process and topped the day off with a visit to a farm on a dead-end road before consulting his envelope. He came up with OM twice in the course of a 37-mile trip, but OM still won the booby prize (log book) with 54 miles on his speedo! The same things in varying degrees happened to CT, AF and the others.

KA introduced some interest for the ladies in the form of a sweep, each car being considered a racehorse for the purpose of the exercise. "Beam, from Three Element by Rotate," 7CW in other words, brought home the bacon for Mrs. 7AF.

Messrs. Laurence and Hanson donated a prize for the champion loop-swinger, a high-voltage filter condenser.

The past few days have seen stirrings among the old-timers, with a round table QSO between 7LJ, 7CW, 5BY and 3CN. And, last but not least, 7AH whose dots are as clean as any we've heard in spite of eighty birthdays, may soon be having a go.

NORTHERN ZONE

This month we have much pleasure in announcing that Messrs. Don Brooks and Bill Carter have successfully passed their A.O.C.P. examination and will shortly be on the air. It is to be hoped that in the near future we will have sufficient members to enable us to hold occasional meetings.

Prior to writing these notes I contacted various members with the object of finding out their activities. In two instances I found that I had started a first-rate "hate" session. The subject—phone versus c.w.

It is to be deplored that this bogey should again come up and cause ill feeling in our ranks at a time when it is imperative that we stand united to keep our already over-crowded bands intact. It is not the purpose of these notes to try and solve this problem as using both phone and c.w. I like to consider myself neutral, however I do think that some stations could be more careful. 14040 Kc. is hardly the frequency to use when trying to raise DX on phone. As for the 7 Mc. band, well it could be likened to a side-show alley at its best.

Could we not come to some gentleman's agreement on the use of phone and c.w. on our DX bands? Then let the W.I.A. conduct an advertising campaign and let it be made known what they consider fair for all so that we can keep our bands clean AND our ranks united.

This month there is very little station activity to report. 7JW is at present building up a new receiver using a crystal filter and 1900 Kc. i.f. 7LZ has been forced off 28 Mc. owing to bad power leaks, but is working a bit of DX on 14 Mc. 7DS now using a half wave 14 Mc. single wire feed antenna, and, like 7RK, has found it works out very well.

7BQ is still finding time to work his skeds on 7 Mc. and to yarn with 3ACR every Sunday morning. 7GD has just completed a new transmitter using push-pull 809s in the final. 7TE is still managing to keep to himself so we have no news from Bill.

As these will be the first notes to be published for the New Year we will take the opportunity to wish all the gang, "Good Hunting" for 1948 with the best wishes of the Northern Zone members.

CORRESPONDENCE

12 Cromwell St., Hobart, Tas.
Editor, "A.R."

Mr. Vale's letter in November "A.R." seems to reflect the attitude of those who indulge the old human failing of pulling down a standard, be it telegraphic or technical ability, or anything else, if for some reason they don't reach it.

The business which occupied the years 1939 to 1945 brought such a demand for telegraphists AND technicians that it was necessary to try to mass-produce them. As in anything which requires patience and application, many of them remained "sausages," so many, in fact, that I fear some of us began to regard the "sausage"—only the telegraphist ones in Mr. Vale's case—as an accepted standard. The loss of many precious hours of communication, under conditions which would not permit of anything but solid and intelligent manual operating, can largely be credited to that attitude.

Now, I don't want to be hard on Mr. Vale—he errs in good company—but it seems to me that a technician is more worthy of the name if he can make full use of his equipment. The simplest and sometimes most effective use is to break up that beautiful carrier into Morse characters.

Yours faithfully,
W. W. WATSON, VK7YY.

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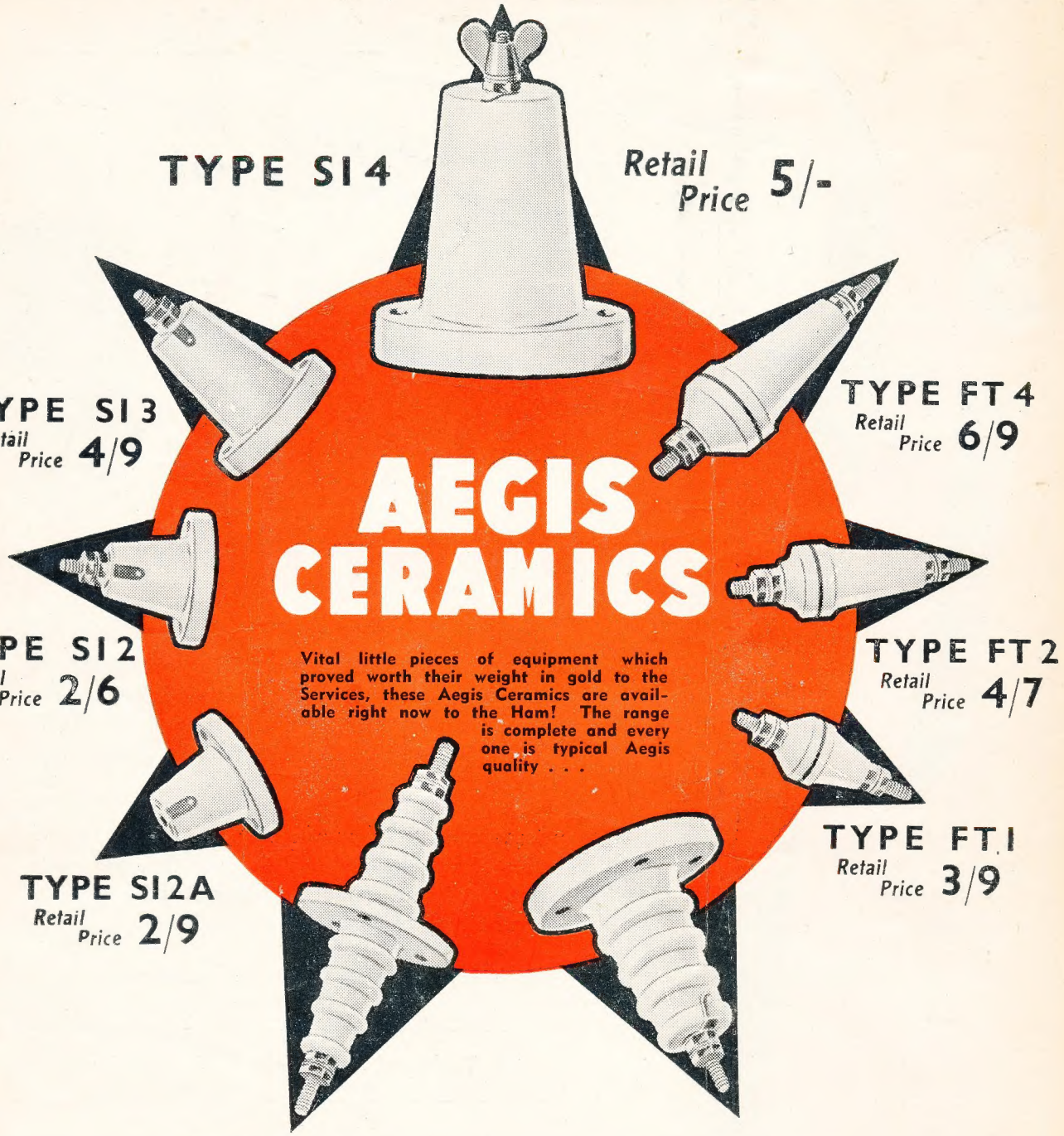

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